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CODES!
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The National Locksmith®



LOCKSMITH TOOLS

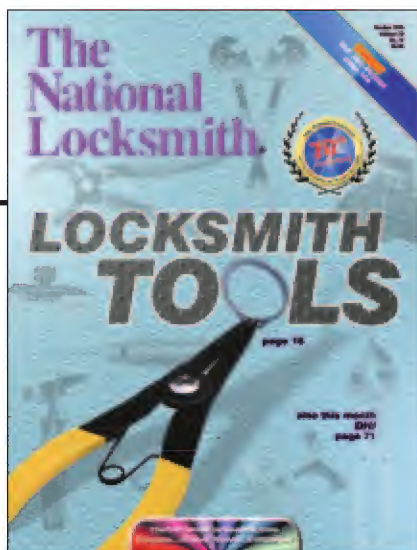
page 16

also this month
DHI
page 71

TheNationalLocksmith.com
Forums...Online Store...Editorial!

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On The Cover...



There are few things that will put a sparkle in a locksmith's eyes like the acquisition of a new tool. The more he has, the happier he is, and the easier life will be.

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CONTENTS

The National Locksmith October 1999 • Vol. 70, No. 10

FEATURES

**COVER
FEATURE!**

16

Locksmith Tools

24

**Servicing GM 10-Cut
In-Dash Ignitions**

30

**Medeco's SiteLine
Electronic Lockset**

34

1998 Honda Odyssey, Part 2

50

**Introduction To
Master Keying, Part 1**

58

Literature & Brochures

73

**24th Annual Door And
Hardware Institute
Convention and Exposition**

80

DHI Product Showcase

84

Key Control

88

**A/R Rim Device
With Electric Retraction**

94

LCN Quest™ Door Closer

105

Quick Entry Update

107

Sentry Keep Safe

130

Time Wasters

144

1999 Lincoln Town Car

151

BWD V.A.T.S. Decoder

156

**Dispelling 10 Myths
About Locksmithing**

CODES 158

Fiat

DEPARTMENTS

5 COMMENTARY

64 BEGINNER'S CORNER

6 MANGO'S MESSAGE

120 THE LIGHTER SIDE

8 LETTERS

122 TECHNTIPS

12 SECURITY CAFÉ

170 TEST DRIVE

COMMENTARY



A Locksmith Tale

Once upon a midnight dreary
as I closed the lockshop, tired and weary,
a ringing came from out the phone.
As the bell began its tingling
in the cradle gently jingling.
I looked around but was alone.
I answered, and said, "Locksmith," with a moan.

"I know it's late, but I'm in trouble,"
he said, "I'm at a bar, but not seeing double.
I've locked the keys inside my car,
and need to get home to my wife,
if I don't get there soon I will have strife."
OK, I sighed, since it's not far,
I'll be right over to open that car.

The air was fresh, the night was cool
and under my arm was my favorite tool,
so I went to the van and got ready for a ride.
I started her up, sitting high in the seat,
Thinking of this car I'd soon defeat.
Sure, many vehicles my patience have tried,
but I'm a locksmith and I always get inside.

The van and I went straight, then made a turn.
I thought, do these guys at the bar ever learn?
But this job'll be fast and I'll make extra money.
Now where did I put that plastic wedge?
That's right...it's back on the window ledge.
I'll pop this sucker fast, and get home to my honey,
Go fishing tomorrow, it's supposed to be sunny.

He was waiting there by the bar door
and said his buddies helped but could do no more.
So I slipped my tool in, but the panel felt tight.
His key was in the ignition, the rest just hanging there.
As I worked a crowd formed, and began to stare.
I couldn't see squat, so I went for my flexible light
When I looked inside I saw an awful sight.

You guessed it, the linkage was knocked right off,
and by now the crowd was beginning to scoff.
So I moved to the passenger side, flushed with anger.
I'll pop open this other door right now

before this multitude and I get into a row.
The crowd called out, why don't you up and bang'er,
One said, hey my brother-in-law could just use a hanger.

I thought I'll wedge the other door and look in the panel,
then I felt cold even though my shirt was flannel.
The crowd would sure jeer me as I looked inside.
And I didn't want to let them see me there, hanging,
and a pain right behind my eyes started in banging.
A drunk laughed, hey he can't open Joe's ride.
In anger I trembled as the crowd continued to chide.

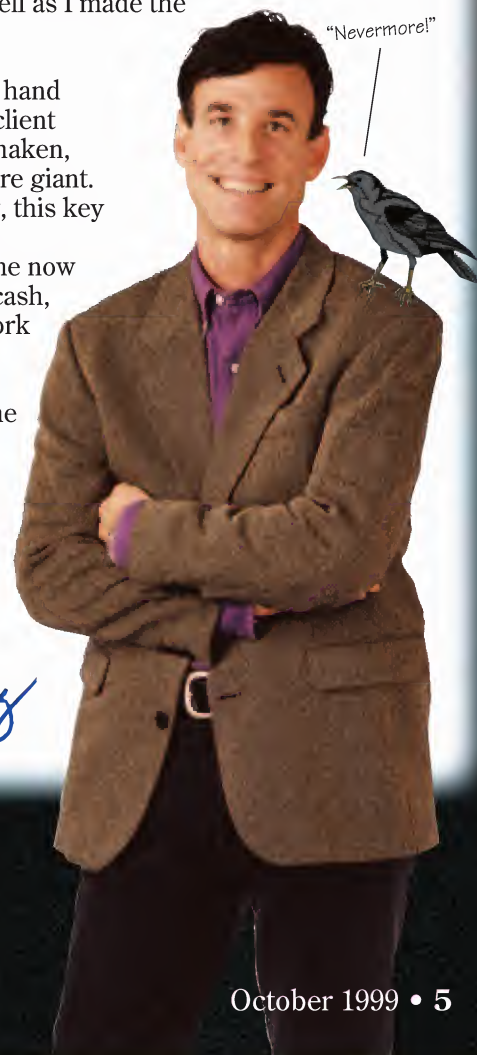
I walked to my van and I felt eyes on my back.
As I dug around inside, they continued the attack.
I emerged with a tool, and said stand aside with a snip.
I went to the window, and saw the door key with my eye.
I think I can read this I thought with a sigh.
What's he doing, one belched with a big rip.
I just smiled to myself as I made the
last clip.

With untried key in hand
I approached my client
His buddies were shaken,
now their eyes were giant.
One said, you know, this key
it just won't work.
I said you can pay me now
by check or with cash,
And this key will work
or I will eat trash.
Got my money, put
the key in, gave the
handle a jerk,
Then I opened
the door, and left
with a smirk.

Quote the raven:

"Nevermore!"

Marc Goldberg



Have questions? Want free technical help?
Free Locksmith Forums!

www.TheNationalLocksmith.com

Marc Goldberg
Publisher

October 1999 • 5

Mango's micro Message

Greg Mango

**Greg Mango
Editor**



I am flabbergasted when I talk with a fellow locksmith and he tells me that business is slow. Fortunately this is the exception and not the rule, but I just don't get it! How can you be a locksmith in one of the most financially fertile eras in history, and not have any work?

Maybe those who can't seem to find work just don't watch TV, or read newspapers, or listen to the radio. If they did, they would realize that there are more opportunities for employment and financial security than ever, but try telling them that.

Unless you are a locksmith in rural (and I mean rural) America - which if you haven't noticed is dwindling rather rapidly - there is simply no excuse to be waiting for the phone to ring. There are business opportunities all around you if you can see them. It's like the old cliché where one individual will see a glass containing 50 percent of its capacity in water as half empty, while another will see it as half full.

I am often amazed at the amount of information and number of opportunities that abound for locksmiths, yet few take the initiative to capitalize on either the information or opportunities when they present themselves. I believe it's because some individuals just can't see it.

I am a bit of a news and information buff, often watching the local news, world news, BBC news, news magazine programs, PBS, and reading the newspaper and magazine news tabloids. I seldom ever watch a sitcom (now that Seinfeld is gone) or even know what else is on. If you are in touch with any of these news sources you can't help but hear about the various breeches, or threats of security, which plague this nation and offer business opportunities if you are willing to pursue them in a creative savvy manner. This is where far too many locksmiths fall short. They want the work to somehow find them, they don't want to find or develop it. You must create, cultivate and capitalize.

There are, however, many locksmiths who do see, or hear, of a potential business opportunity and seize it. Vincent Chestnut, CRL owner of Alpha Locksmith of Tisbury, MA is one such locksmith.

Vincent provides locksmith services in the famous Martha's Vineyard area, which has long been recognized as a hideaway for the rich and famous. On June 10, 1999 the Martha's Vineyard Times newspaper reported a story about a repeat drug offender out on a reduced bail, which peaked Vincent's interest, causing him to react in a creative business motivated manner.

Capitalizing on Opportunity

The story reports of a man by the name of Jeffrey Alley, whom police called "one of the biggest drug dealers in town" who was allowed to post bail after a Superior Court judge reduced his bond from \$10,000 to \$2,500. Alley was charged with heroin and cocaine possession as well as receiving stolen property. Police arrested him after seizing \$4,400 worth of heroin, \$200 in cocaine, and \$765 in cash believed to be from drug sales from his home.

Alley had already served two years in jail for cocaine trafficking. His criminal record dated back to 1972. At a bail reduction hearing, Superior Court Justice John A. Tierney, was impressed with Alley's perfect court attendance record. Alley had never missed a court date in 27 years. "Twenty-seven years of coming into this court and he's never defaulted?" Judge Tierney said. "That's rare isn't it?"

The Oak Bluffs police chief who designated Alley as the "number one target" expressed deep frustration with the judge's decision. Chief Carter said he would have sent a representative of the department to testify at the hearing if he'd had any idea Alley's bail would be reduced.

As a locksmith, what would you have done after reading this story? Recognizing this story as a prime business opportunity, Alpha Locksmith, Vincent Chestnut, placed the following advertisement in the next issue of The Martha's Vineyard Times:

There are thousands of business opportunities such as this that occur every day. The trick is to recognize it as a business opportunity and then capitalize with creative thinking. **TNL**

JUDGE ENCOURAGES DRUG SALES

Vineyard judge reduces bail on Island's "biggest drug dealer" because of 27 years of coming to court with a perfect attendance record.

Why is this person still on the Vineyard streets?

Call now for a free security inspection for your home or business.
ALPHA LOCKSMITH 508-693-5625

Letters

The National Locksmith is interested in your view. We do reserve the right to edit for clarity and length.

Crystal Ball

I sometimes think while reading Sara Probasco's column that she has a video camera in my shop and she just changed the names of the players in her stories.

When we got a new electronic cash register (our old one only registered up to 1.95) we too went through many voided sales tags and several years later my hubby still has problems with the darn resale key. Thank goodness there are only two of us in the shop to worry about.

I thought you might get a chuckle out of a recent incident, which happened to us.

My hubby is always after me to be careful with my keys as I am constantly leaving them in places I don't remember leaving them. My theory is they grow legs when we aren't watching and toddle off to get even with us. Well, one night while locking up the shop, he missed his belt loop and unknowingly dropped his ring of shop keys outside our door.

He drove home and through the two remote control garage doors only to reach down and find his ring missing. In a panic he frantically backed out of the garage leaving his now broken rear view mirror in pieces behind him.

He dropped by the grocery store where I was shopping, told me what had happened got the cellular phone from me and proceeded to call the shop hoping his keys would still be lying there. Meanwhile, I drove home and in my haste to make sure I had my shop keys, I promptly locked my van keys in the van along with the frozen chickens and ice cream. Luckily I had a set of house keys on my shop ring. I let myself into the house thinking I had an extra set of van keys with me when I remembered the extra set was in my purse, which of course was now locked in the van.

The phone rang and Ron (hubby) said to hurry on down to the shop as his keys were missing and he didn't dare leave the shop. Of course he has all the car opening tools with him so I got out my stepladder (it's a big, big van I drive) and proceeded to try to open my van with a trusty coat hanger which I did after watching my neighbors writhing on the grass with laughter.

I then drove to the shop where we proceeded to rekey the shop and get a stern lecture from my alarm company who informed me the batteries in my panic button were last replaced in 1993 (even the bunny can't guarantee batteries that long). We finally got everything rekeyed and a new alarm lock installed about 10:30 that night.

Over Taco Bell dinners we decided that in the future we will be more sympathetic to our customers who call



with those last minute emergency rekeys! And Ron no longer lectures me about the time I lost my shop keys. Still I am trying to catch those little suckers growing legs whenever I turn my back.

We really enjoy Sara's book and her column and look forward to chattin' with her at the ALOA Convention in Las Vegas next year.

*Elain Willhoite, C.C.L.
California*

Marketing is More Than The Yellow Pages

My compliments on Greg Mango's, July TNL editorial regarding apathy and negative attitudes about sales and marketing. This is not the most popular topic for a readership that prefers technical articles over "less interesting" general business material. However, it's one that needs to be addressed more, not less.

Greg made what I think was an accurate assessment of one of the biggest problems faced by small service businesses in our industry. Self-image tunnel vision has too many of us thinking, "I'm a

The National Locksmith
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Attn: Editor

technician, not a salesman." The problem is made worse by the fact that so many who have it refuse to recognize it as a problem. Some recognize the problem but are unwilling to do what it takes to solve it. A few have recognized the problem, learned what they needed to do to fix it, and did it.

Price is definitely a factor in sales. However, when we lose clients to competitors it isn't always because of price-cutting. Moreover, there's no such thing as somebody "stealing" a customer. Customers don't "belong" to us in the first place. Customers decide who they will spend their money with. Spending decisions are often influenced by whoever does the best sales and marketing job. It's very obvious: "selling" is more than waiting for customers to line up at the cash register. "Marketing" is more than a giant Yellow Page listing.

Sales training is available. Maybe there's something to it. Maybe we should take a "nontechnical" lesson or two.
*Ken Dunckel
California*

What A Great Forum

Yesterday, I turned on my computer with one idea in mind, to relax. You know, a little mini vacation from the everyday stuff, even including locksmithing. At the top of my e-mail list was an invitation to check out *The National Locksmith* Web Page. Initially this did not thrill me, so I put it on the side for later. Don't get me wrong, I think *The National Locksmith* is an excellent publication, it's just that I work at this trade 7 days a week for the last 10 years and I love the business as much as anyone, but yesterday I just needed a little break.

O.K., I thought, I'll just take a quick look at *The National Locksmith* web page and then go on to other things. Ha! Four hours later I was still there and feeling let down only because there were no more messages to read. This is a great forum! I can't thank you guys enough for putting it together.

Who thought up asking for key bittings from a code as a security check? What a clever idea, I love it.

I was so impressed when I saw the SOS from Jack [Lockshop6@aol.com]

dated May 31, 1999 11:39 AM, saying his laptop crashed and he needed a code ASAP. At 12:16 he got his code, thanks to Dick (keeman@juno.com).

Way to go guys. I know I'll be checking in at least once a day from now on.
*Ginger
New York*

Kindness, Courtesy, and Caring

A customer called and said there were no keys for her boss's desk and asked if I could help? I said I would. She told me I helped her with a lockout on her blazer previously, but I couldn't recall the incident.

I arrived at the site and completed the job. Upon leaving I asked her where she got my name? She immediately reached into her purse and took out my business card. She further explained that I had treated her so well when I serviced her blazer that she made it a point to keep my card. She also stated that she would make it a point to call me should she need a locksmith in the future.

I was 5'6" when I arrived at the site and 10' taller when I left with a lump in my throat. Kindness, courtesy, and caring pays in satisfaction of a job well done.

*Tom Seager
Michigan*

A Fox In The Hen House

Well, well, well! Another year, another problem with a fox in the hen house. This time, however, the fox is one of our own.

I am the president of the T.A.O.L. association and recently many association members have been making inquiries to the office regarding a new National Locksmith Association, one of which has supposedly been operating since 1995. After several phone calls and many questions, our members once again have led us to the source. We have uncovered the fox in the hen house.

One of our association directors has been soliciting locksmiths to join a new association, many of whom are our members. Many false statements are made in their letter of solicitation, in fact some of these statements are bordering on fraud. One of our members visited the listed address for this new association only to find a two-story

building. It did not appear to have a third floor. Do people normally put suites in the 300 category in a two-floor building?

Another one of our loyal followers informed me that the phone listed for the new association is in a house in Hamilton. Other members tell me they have been personally contacted by this individual to join this association. One must ask themselves how long can any association last that has its beginnings tainted with deceit, fraud and lies? What is really upsetting is the fact that this person was given the position of membership chairman and was a trusted director of the board of T.A.O.L. How much (if any) of our resources went toward this little venture? Things like phone calls, use of membership lists, files, etc, this is most certainly not in the best interest of our association.

As president of T.A.O.L., I can assure you I have been in touch with our directors and none of them can condone this kind of thing. It will be dealt with most severely at our meeting of the board. If any of you have any questions or concerns contact me. I will be happy to hear from you. Also I feel certain this will be brought up at our general meeting and auction sale in May.

I must close for now, but rest assured your board of directors and trustees are looking out for the best interest of T.A.O.L. and you, our members.

One cannot help but wonder if the letter in the November newsletter attempting to discredit myself and others on the board including our association staff members, was all a part of the script, leading to this new association. If so, I would suggest to you and your little group that you bask in failure as you will not likely ever see success. I would further suggest to you that you heed this well-known phrase and words of wisdom: "There is some hope for thieves but there is no hope for liars." Those of you who start out that way end up that way. It did not work then, and it is not going to work now!

I thank each and every one of our members for your concerns, your support and your help in getting to the bottom of this situation. You have proven beyond a shadow of a doubt that without a working membership there can be no association.

*Don Dekuyper
President T.A.O.L.*

TNL

Security Café

**DROP IN FOR
TOOLS, TECHNOLOGY
& EQUIPMENT**

Jensen Digital Multimeters



Jensen Tools recently introduced a new line of high quality digital multimeters, including three Clamp Meters. The JTM-30 (pictured) is

a miniature AC/DC current clamp meter that accepts up to 22mm conductors. The JTM-33 is a true RMS AC only meter. It has display hold and is four-foot drop tested. It accepts up to 40mm conductors.

Abus 39 Victory™ Chrome Brake Lock



Abus announces the introduction of the 39 Victory™ Chrome Brake Lock. Developed by German engineers to resist all types of professional attack, the 39 Victory™ is specially shaped and triple chrome plated.

The unique patented design and patented ABUS Plus Keyway System offers balanced maximum security against, Freon™ spray, boltcutters, drilling, picking, hammering, and cylinder pulling.

The lock body and mushroom pin are crafted from special high strength steel alloy and then core

hardened to 65 Rockwell hardness, making the lock harder than the jaws of boltcutter blades.

Weighing in at 2 pounds and sporting a handy carry case; the 39 Victory™ has been tested to exceed the highest ASTM, AMSI, and International SSF security standards.

Abloy Deadbolt with Key Lockable Thumbturn



In addition to a single cylinder deadbolt and double cylinder deadbolt, Abloy offers Abloy Dislock Pro deadbolt with key lockable thumbturn.

During daytime use inside thumbturn can be conveniently used as a regular thumbturn. After hours inside thumbturn can be locked with proper key to provide double cylinder security.

Darex Drill Doctor



Designed for drill users with high standards, the Drill Doctor provides a long-term and money-saving solution to the dull drill bits dilemma with its two high-performance models. The professional Model 750 sharpens bits

Optex Wireless 1000 Annunciator



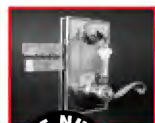
Optex's Long Range Wireless 1000 Annunciator System reliably alerts users to the

approach of visitors, provides outdoor perimeter protection and other "light" security applications. Both the PIR transmitter (TD-10U) and the push button (TS-10U) transmitter are fully weatherproof for indoor or outdoor use. The receiver (RC-10U) has three tones to identify the transmitter sending the signal, a latching alarm zone, and a 1 Amp form C relay which is ideal for activating door strikes, lights, CCTV, and countless other uses. Winner of SIA's Security Industry's Finest Award at ISC West 1999.

from 3/32" to 3/4", and the Model 500 sharpens bits from 3/32" to 1/2".

Equipped with a powerful 1.75 amp. motor and a diamond grinding wheel system that can sharpen 200 or more bits before needing replacement, the Drill Doctor sharpens a wide variety of drill bits, including carbide, high speed steel, cobalt and tin coated drill bits, as well as standard, masonry and split point bits.

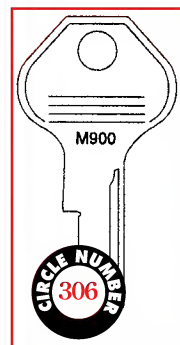
Multi Lock Inc.



Multi Lock Inc. has developed a new lock for the higher security in jails, factory tool cribs and ornamental iron gates. This lock has handles on both sides, a double cylinder deadbolt and a thumbturn privacy knob mounted on the inside handle for daytime use. The lock is shipped with the bolt and latch extra long so that you can fit it on the job. Materials used in this all

weather lock are aluminum and brass.

Jet Hardware M900 key blank



Jet Hardware announced the release of their M900 key blank to fit Master # 900 padlocks. In addition, eight new General Motors

plastic bow keys including B46-PH and B47-PH are part of the basic series of B44-PH through B51-PH keys.

La Gard Inc. LG Basic



La Gard, Inc., has introduced the lowest priced electronic locking system they have ever offered, called the LG Basic. The LG Basic was developed to present an electronic lock at a price that is comparable to mechanical

locks, while maintaining the reliability and security of a high-end electronic lock.

Schwab Introduces 20" Hero File

With the Hero, a 20" fire-protective file, Schwab Corp.



has packed the performance of their bigger products into a file that keeps the attitude, yet sheds some of the stature. This compact, lightweight design makes the Hero ideal for use in a home or small office.

Inside, the Hero holds up to 15 inches of letter-sized or 12 inches of legal-sized documents in each drawer. The addition of a Schwab Media Cooler, which fits in either drawer, diversifies storage to include the fire-protection required for sensitive computer media.

Insulite™, a chemically dry insulation well known for its efficiency, provides the Hero with UL Class 350-1 Hr. fire protection. Framed by the Hero's seamless steel body, Insulite is also used between the drawers making each one independently fire resistant. Steel-lined drawers add further protection by preventing entry into a locked drawer from an unlocked compartment, and also keep insulation from dusting your records.

Numberall Stamp & Tool Economical Numbering Machine

Numberall Stamp & Tool Co., Inc. has expanded the Model 60 Numbering Machine to 5/32" and 3/16 size characters. The Model 60 is an economical hand held numbering machine available with up to 5



wheels. A large frame and larger diameter wheels have been incorporated for the larger characters. It is ideal for stamping machine parts, keys, brass tags, identification codes and many other uses.

Because of the simplified construction, the Model 60 offers an economical price. The Model 60 is struck with a hammer blow. It can adapt for press mount applications. The wheels are locked in position with a pin, which seats in the frame. The wheels can be quickly set to any code by easily removing the pin and rotating the wheels.

The Model 60 now offers 1/16", 3/32", 1/8" 5/32", and 3/16 character sizes with 2 to 5 wheels. Letter wheels are available for alpha-numeric sequences.

Aiphone Develops a New Drive-Thru Video System

Aiphone Corporation has developed a new audio/video drive-thru system, which will provide the convenience of face-to-face (two-way) service for the pharmacy, banking, and other retail utilizing drive-thru lanes.

The Aiphone DTX 3000 features a color touchscreen



control panel that contains all video images and system controls. A remote color tilt camera expands video surveillance allowing for a better view of the drive-thru area and customer. The remote TFT color LCD has been enhanced for a better picture in direct sunlight. When privacy is a concern, the system provides a handset with stainless steel armored coil cord at the remote station. Other features include simultaneous, hands-free two-way audio/video communication, up to five stations and three drive-thru stations, and audio/video messaging or advertising. A cordless telephone interface is an additional option.

The DTX 3000 system is available in an audio/video configuration. Audio only also is available.

Corby Introduces the Keypad Control Center



A printer interface is available for Corby's 6000 Series Programmable Keypads. With the addition of the Keypad Control Center up to fifteen keypads can provide a printed report for 255 people. All user information can be programmed with a keypad, Video Display Terminal or any personal computer that has a terminal software package installed.

It can be connected to almost any serial or parallel printer to provide a hard copy record of all system activities. Events logged include the keypad used, time and date, valid and invalid attempts, and the users name or user code. The 6000 Series Programmable Keypads also display Request-to-Exit, Door Ajar and Forced Entry. In addition to its report capabilities, the CPI stores thousands of events.

A telephone modem can be connected to the CPI for remote programming or remote event reporting. A bean counter option is also included to monitor the number of people within a protected area.

National Safeman's Organization



Do you work on safes? Then you know how difficult it can be to stay on top of the thousands

of details involved in the millions of different containers, safe and vaults in use right now.

If you would like to make bigger profits in the field of safe work, you should join the National Safemans Organization. (NSO). The NSO will provide you with a special newsletter called The National Safeman. This publication is a special report each month taking difficult and common safes which are serviced. Written by Dave McOmie and friends, you will be amazed at the detailed safe opening instructions that are given you.

You are shown step by step how to open a huge variety of safes, cabinets and even vaults. You are given extremely clear photographs, measurements and specs so that when you're called out to a safe, you'll already know exactly how to do the job.

If you have ever once had to pass up or waste time on a safe job, the NSO is for you! The first job you do successfully with help from NSO more than pays for your entire year's membership. **TNL**

COVER
STORY!

LOCKSMITH TOOLS

Locksmith Tools

We all know that the key to success is having the proper tool. Oftentimes, however, we are unaware of a particular tool designed for a specific application that would make our life a whole lot easier. Such tools are often supplied by small manufacturers with equally small advertising budgets, or from major manufacturers not interested in pushing small ticket items. As a result, you may not be aware they exist. Here is a look at some of the lesser known products that may be just what you need.

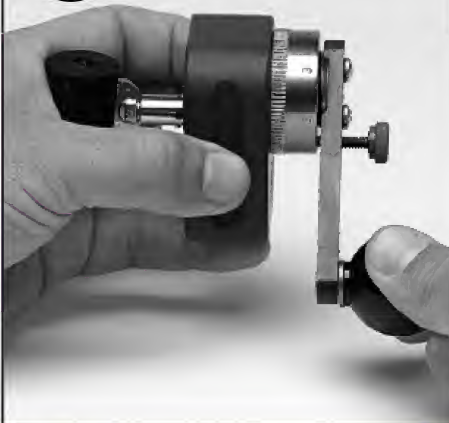
Jensen RoboGrip® RCP™ Pliers

These new pliers have one-handed operation, allowing the tool to adjust as quickly as your hand can squeeze. Laminate steel construction provides superior strength. Pads protect the connector surface. The Robo RCP is available in two lengths: 8-inch, which adjusts 1/4" to 1-5/8", or 9-inch, which adjusts 1-1/4" to 3".



A-1 Herty Gerty

A-1's Herty Gerty is a compact, hand operated code cutter for tubular (#137) key blanks. This machine has the ability to cut offset left and offset right. Can also cut pin within a pin applications. By using the A-1 decoder (included) locksmiths can decode an existing tubular blank to produce another.



Lockmasters AR-1800™ Opening Tool



The AR-1800™ Opening Tool can be used to release the locking bolt on the Adams Rite 1800 Series mortise locks with the regular bolt, short bolt or hooked bolt. The wire is designed to enter the keyway of some mortise cylinders with a large keyway, i.e., Medeco, that do not have a solid or backed cam. With practice you will be able to open these locks in under a minute!

The AR-1800™ comes complete with five wires and a 3/32" Allen Wrench. The wires have flat ground on both sides to prevent the wire from turning in the handle.

Gator Tool

This "Multi-purpose Face Cap Tool", will remove a face cap from a lock housing with very minimal damage, and the same face cap can be reused after the

repairs have been made to the lock. This sounds too good to be true, but it's not. The tool came from many years of doing face cap removal the old hard way with a screwdriver, pliers, punch and a hammer.

The first operation of the tool is to easily remove the original face cap in good condition so it can be replaced



CIRCLE NUMBER
324

back on the lock. This is accomplished with a specially designed hardened tip and saddle.

Once the repairs have been made, the second operation is reinstalling the same face cap back onto the lock housing. This tool is fully adjustable to accommodate most any size of face caps from the very thin and small to the larger, older models. The tool requires a minimum amount of adjusting to give a professional look after reinstallation of the face cap.

The third operation of this tool comes from not being able to stake spring covers on GM lock cylinders. The process has always been hard to do with one hand holding the lock and punch, the other hand holding the hammer. This tool eliminates the hassle and easily pushes the spring cover into place then, with slight adjustments, staking the cap into place.

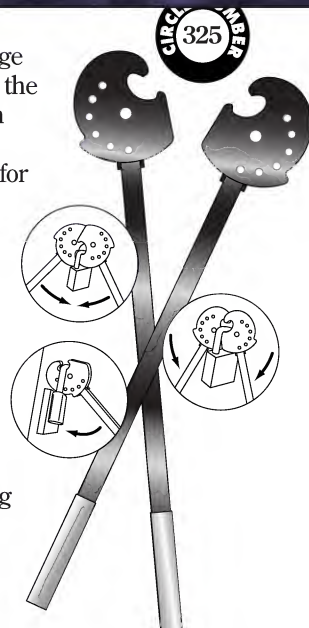
HPC Padlock Buster (PB-20)

If you can't pick the padlock, bust it open with the HPC Padlock Buster. The Padlock Buster (PB-20) is designed to

open most small and medium size padlocks with shackle diameters up to 5/16" (7.95mm). It opens padlocks with toe and heel steel locking balls, up to 1/4" (6.35mm) diameter shackle only. The unique design allows you to adjust the elliptical cam heads to fit a wide variety of shackle clearances. Once positioned, applying a lever action to the tools will force the shackle out of the padlock and bust it open. The HPC Padlock Buster completely destroys the padlock without marring the hasp or the door.

The HPC Padlock Buster (PB-20) comes complete with two padlock busting arms and an allen wrench for adjusting the rotating elliptical cam

heads. The large center hole on the cam head is an axis point for pivoting them for different uses. The six smaller holes are anchor points. Rotating the heads is as simple as loosening the allen screw adjusting the head and tightening the allen screw.

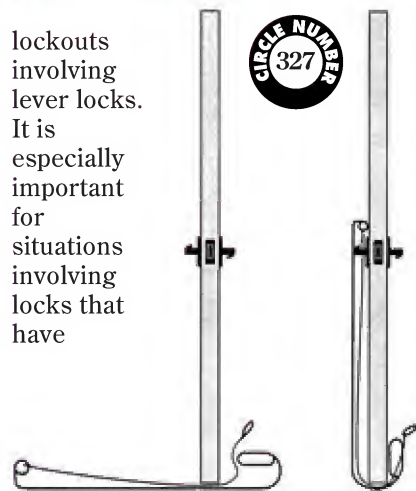


CIRCLE NUMBER
325

If you can slide the new K-22 Lever Opening Tool under the door, you will open it! This amazing tool is invaluable for

KEEDEK Lever Opening Tool

lockouts involving lever locks. It is especially important for situations involving locks that have



CIRCLE NUMBER
327

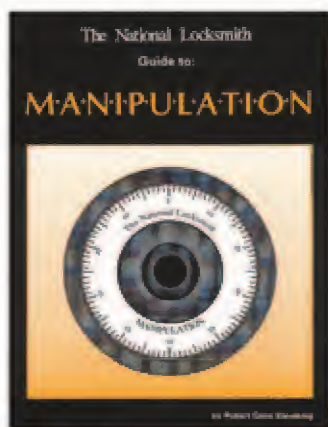
malfunctioned or that are pick resistant. This tool can save precious time and valuable hardware.

Two new products for installing Adams Rite type locks

Major Manufacturing LMB-08 and LMB-089

are now available from Major Manufacturing-The LMB-08 mounting bracket and LMB-089 bracket installation tool. The LMB-08 bracket is used to mount locks in narrow style aluminum doors with radius faces. Adapters are provided with each set of

Manipulation Home Study Course



Our home study course guides you on step-by-step process, teaching you everything there is to know about manipulation.

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#MAN - 1



Roto Zip 3D Zip™ Bit



Bit

drills, mills, countersinks, and cut woods, and wood products, in virtually any direction-even around corners. Used with 3/8" and 1/2" drills, this single bit replaces Forstner, spade, and twist drill bits. The oversized crown with six cutting edges acts as a milling tool to recess a box or a lock, or cut grooves and channels for cables and tubing.



brackets to accommodate flat and bevel doors. All three door styles can be accommodated with this kit. The LMB-089 installation tool is used to align and hold the brackets in the frame for a perfect fit.

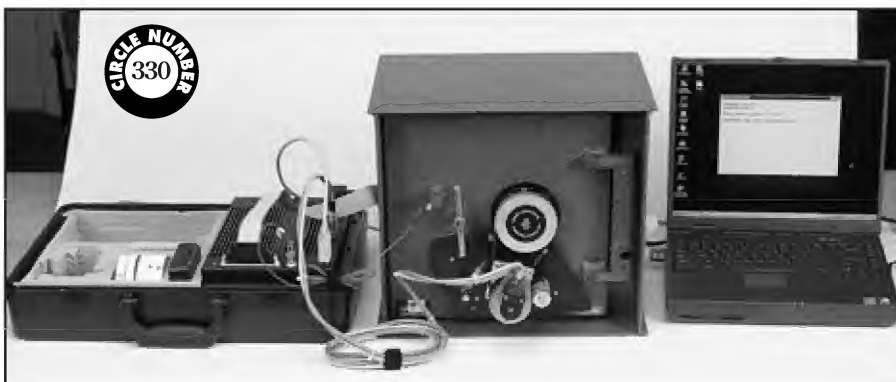
Roto Zip Tool Corporation 3D Zip™

MBA

SoftDrill is a new and extraordinary tool designed to open the most popular mechanical combination locks quickly and easily. No longer will it be necessary to hard drill a safe when the combination is lost. No longer will you have to attend special classes and schools in the art of manipulation. SoftDrill can open the most popular mechanical combination locks in 30 minutes or less.

Using sophisticated electronics, powerful software and a conventional laptop computer, the SoftDrill can automate the process for you-without damaging and destroying the integrity of your safe.

Unlike autodialers that automatically dial all possible combinations until the lock is opened. SoftDrill uses a powerful electronic transducer microphone to listen to the wheels, gates, fence and lever of a combination lock. Much like the techniques used by experts, the SoftDrill uses powerful algorithms to make a profile of the lock's wheels, thus deducing the lock's combination. Autodialers can take up to 30 hours to open a lock, whereas SoftDrill can usually so this in 30 minutes or less. Even very difficult combinations rarely take more than an hour for SoftDrill.



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This is THE source for automotive technology, safe opening techniques, electronic security and much, much more.

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#SUB - 1,2,3,4,5,6

October 1999 • 19

Flat Rate Manual

The National Locksmith.

Flat Rate Manual
For Locksmiths

Auto Work • Car Opening • Key Cutting • Rekeying • Reprogramming •
Domestic Autos • Code Keys • Duplication Keys • Masterkey Systems •
Combinations • High-Grade Locks • Insulated Doors • Locksets •
Safe Work • Car Opening • Key Cutting • Rekeying • Reprogramming •
Domestic Autos • Code Keys • Duplication Keys • Masterkey Systems •
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By Andrew G. Patis, LPL

Now you can easily
"Price for Profit!"

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#FRM - 1

Sieveking New Key-Scope

Sieveking Products Co. has added the "Key-Scope" to its' growing line of unique locksmith tools. This new wafer lock reading tool incorporates features not found in any other scope. Key-Scope has a new variable intensity High Output light. The longer wafer depressor allows the locksmith to read



CIRCLE NUMBER
333

wafers in deeper keyways. There are "two" viewing lenses on Key-Scope. One lens is "short focus," for standard keyways, the other is "long focus" for deeper keyways and safe work. Used "together," the Key-Scope lenses ADD, to give a higher magnification, ideal for reading those hard to see impression marks. A padded "Hard-Shell" case is included, to protect this fine instrument.

Singertech Neutralizer

Singertech's lever neutralizer is a new tool that allows disassembly



CIRCLE NUMBER
334

and opening of doors with Schlage Rhodes and other Grade 1 and 2 levers without working keys. No special technique is required. It enables the user to consistently defeat levers in less than sixty seconds without damage to the lock. It is also a great time saving tool for opening locks with high security cylinders and locks that will not yield to picking attempts.

The Schwenk Co. has

Schwenk Co. TimeSaver

introduced The TimeSaver One, Two and Three, designed to install the Schlage, Corbin/Russwin, Sargent and Arrow lever lockset through-bolt mounting posts as



well as the Alarm Lock Trilogy T2 and Ilco Unican locks. It eliminates the need to know the door backset or thickness, and is very easy to use and setup. In no time at all, a standard cylindrical lockset mounting can be converted to a lever lockset through-bolt mounting.

There are three TimeSaver's available. The TimeSaver One is used to install the Schlage lever lockset. The TimeSaver Two is used to install the Alarm Lock Trilogy T2 and Ilco Unican. The TimeSaver Three is used to install the Corbin/Russwin, Sargent and arrow lever locksets.

CIRCLE NUMBER
335

Truecraft Tools Magnetic Ratcheting Driver Set

CIRCLE NUMBER
336



Truecraft Tools has a new 32 piece Bit and Socket Magnetic Ratcheting

Driver set, item number 6232. This top quality, made in U.S.A. set drives any fastener including nuts and bolts, Standard, Phillips and Square Recess screw as well as star drives, both regular and tamper resistant.

The set includes a ratcheting driver that allows for three positions: forward, locked and reverse. The anodized aluminum shaft maximizes the magnet power and prevents oxidation. The extra strength long life magnet holds bits secure while also holding fasteners in place. The patented, palm drive "roto-cap" permits easier operation and allows for extra pressure for tough jobs. Twenty-one driver bits are included in the set including three Phillips, three slotted, eight hex bits, and seven tamper proof star drive bits, all in the most popular sizes. The bits are heat treated and made of special S2 steel for extra strength.

Wood Quirks Door Jack

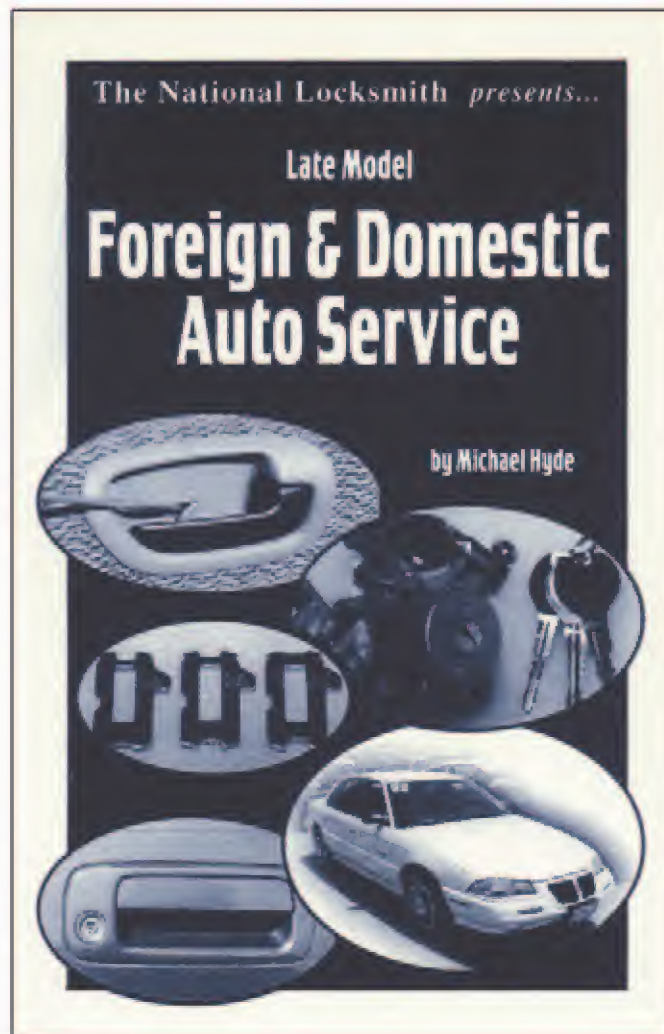


The Door Jack™, an amazing new tool from the Wood Quirks Co. allows any door installer to place even the heaviest door "on hinge" - unassisted! Simply place this unique device under the center of the door and you can lift, rotate and position any door to intermesh the hinge leaves with ease! Leaves one hand free to insert the pins! Rubber cushions protect finished floors.

No more smashing toes, no more aching back, no more marked floors.

TRIL

Foreign & Domestic Auto Service



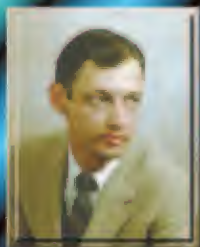
This book represents the best work of Automotive Locksmithing guru Michael Hyde, author of the famous AutoSmart.

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#FDAS - 1

Servicing GM 10-Cut In-Dash Ignitions



by
Bob Sieveking

It was another beautiful locksmith day, the sun was shining and the calls were clicking off, like ducks in a row. I was called to a local used car lot to make a key for a new 1999 Pontiac Grand Am SE. A sales person greeted me before I could get out of the truck. I smiled and said, "You have a '99 Grand Am you need a key for?" Her countenance dimmed slightly, as she pointed toward the sales tower, without a word, and turned to be about some "more important tasks." Have you ever noticed that when you're not buying, you can't find a friend on a car lot!

Pulling up behind the car, I got out my book and looked up the 1999

Pontiac Grand Am. There's no need to get out of the truck, until you know what you're going to do. *Illustration A*, shows the facts for this auto. I loaded code card CF215 into the 1200 machine, found a B91 key on the key board, and chucked it up in the key vise. A quick check was made to be sure the CW-1011 cutter was on the code machine. I picked up a pad of paper, my Universal Wafer Lock Reader, and otoscope as I passed out the rear door of the truck. A quick check of the Facts, revealed that the tumbler locations for this auto were 3 thru 9 in the door, and 4 thru 10 in the trunk. Positions one and two would have to be progressed in the ignition. Not a problem.

To make the story short, the door was read without a problem, and the tip cut was made by progressing the working door key in the trunk. I was sailing, until I came to the ignition. I progressed the cuts in positions one and two, without making a working key. I checked the key in the doors and trunk. I even tried the key in the glove box. It worked everywhere but the ignition. I progressed another key, with the same result. No go. I peered into the ignition with the otoscope, but everything seemed to be in order. I counted nine shiny wafers, all rising to the same height.

Don't you hate it when some mechanic changes out an ignition, without matching it to the other locks in the car! This must be a repo with a new ignition. The day suddenly seemed just a bit less sunny. In-dash ignitions can be a real job.

There's always some tool, which you buy at a locksmith show, and never really try, until all your other tricks fall flat. I guess that's the case with the A-1 Service Kit for GM 10-wafer In-Dash ignitions. I had it, but never really needed it till now. The whole works, with the exception of the drill bit extension, was in a handy plastic box. I had the instructions folded neatly inside the lid, so I sat down and unfolded the single sheet. It always helps to read the

instructions, even if you think you know how something is supposed to work. I laid out the tools on the bench, to study each piece.

Photograph 1, shows the whole works. Item "A" is a special drill jig, which places the drill over the front of the sidebar. The jig positions a hole outside the protection of the hardened drill barrier of the ignition cylinder. Item "B" is the sidebar tension tool. Item "C" is used to depress the cylinder, after the lock plug is turned to the on position. Item "D" is a special drill bit extension. The extension allows you to drill the in-dash ignition without fighting the steering wheel. (Nice idea.) Item "E" is the removal tool. It is a double ended tool. One end is used to remove the plastic lock bezel, and the other has a hook, to remove the metal plug face. Items "F" and "G" are rocker picks. Item "H" is a reader tool for the 10-wafer ignition plug. Once the plug has been removed, it allows the locksmith to read the tumblers without removing the spring retainer. Item "H" is the depth neutralizer. It is used to raise the wafers enough to pick the 3 & 4 depths. All makes sense to me, let's give it a try.

Photograph 2, shows the face of the in-dash ignition. I've run the gauntlet,

GM	Chev. Malibu	1997-99	GM34
Face caps ASP,AL,B&S	codes AA00-7T51		
Ign	valet -		
dr see keying kit	Baxter BK 36		
tnk see keying kit	NL:HPC GCB 3&4 #index		
Keying kit ASP,AL,B&S	Reed 12 - - - -		
ign SK6400, 702767	Curt 20631	1200 CF215	Ilco P1111
dr+ SK6400, 702767	GM-6 GM-6A	ctr CW-1011	EZ B91
Gauge tip domestic	cutr 15W-45	space--depth	TAY
ITL #519 -flt3 -ins1	tumbler locations	1.034	1.315 B&S 597791 CHEV
PAP G14- 90T	ign 123456789•	.942	2.290 B&S
MAX DSD#259	dr ••3456789•	.850	3.265 Curt B-91
T/O TO-77, SET 87	tnk •••4567890	.758	4.240 SIL
	qb •••••R7890	.666	5 Jet B91, B91-NP
Framon:S-B-I .092	3 .025	.574	6 VALET
G-Keys GMC-3, AGK619	All	.481	7 Ilco -
grv 75. Reed's volume 12 contains most codes, add codes; NL 1-97, Ledger 1-97. pick remove		.389	8 EZ -
ign for code. read tnk*read/prog dr *progress		.297	9 SIL -
ign, call 800# for code. Framon? tip left, first		.205	10 Curt 597798 PONT.
cut@ .216. cuts@ .216, .308, .400, .492, .584, .676, .768, .860, .952, 1.044		11	597787 MALIBU
		10w sidebar	Sub. 597796 OLDS

A. The facts for this auto.



1. The A-1 Service Kit for GM 10-wafer In-Dash ignitions.



2. The face of the in-dash ignition.



3. Insert the slotted end of the removal tool into the bezel of the ignition.

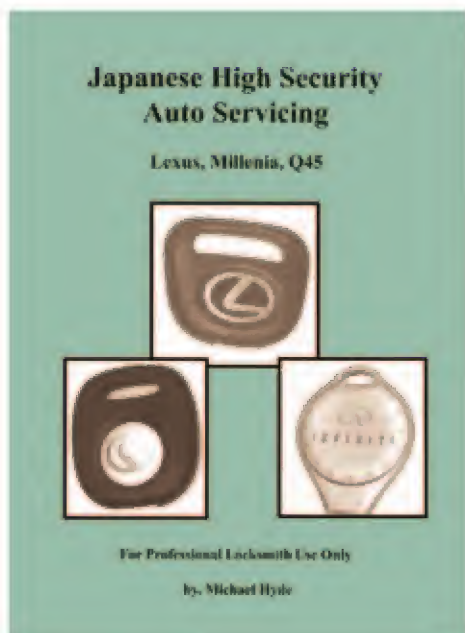
removing all the dash parts, radio, and instrument cluster to get to this ignition. That's why I purchased this outfit in the first place. Sure hope it works as well as the salesman said it would. "Walk in the park," he said. Where have I heard that before!

1. Insert the slotted end of the removal tool into the bezel of the ignition. (See [photograph 3.](#)) Tighten the brass nut. Gently rock the tool up and down while pulling toward you to remove the bezel. (See [photograph 4.](#)) Loosen the brass nut to remove the

tool from the bezel.

Let's take a closer look at this tool. [Photograph 5a](#), shows the working end of the bezel removal tool. A tapered plug fits into the end of the tool. The brass nut draws the plug into the end of the tube. There is a groove in the tip, which engages the bezel when the tip expands. [Photograph 5b](#), shows the tip after the nut has been tightened. It is an expanding mandrel type device. Pretty impressive. It sure removed the bezel in short order, without any damage.

2. Place the hooked end of the removal tool against the edge of the ignition cap at the 9 o'clock position, as you see in [photograph 6](#). The "hook" must be under the lip of the ignition cap. From this point, "carefully" pry the cap (with its' inner black plastic support from the ignition). Move the handle of the tool in an upward direction, using the flat of the tip as the pry point. The cap will ease right off the front of the plug. Keep the inner black plastic support with the cap, as you see in [photograph 7](#).



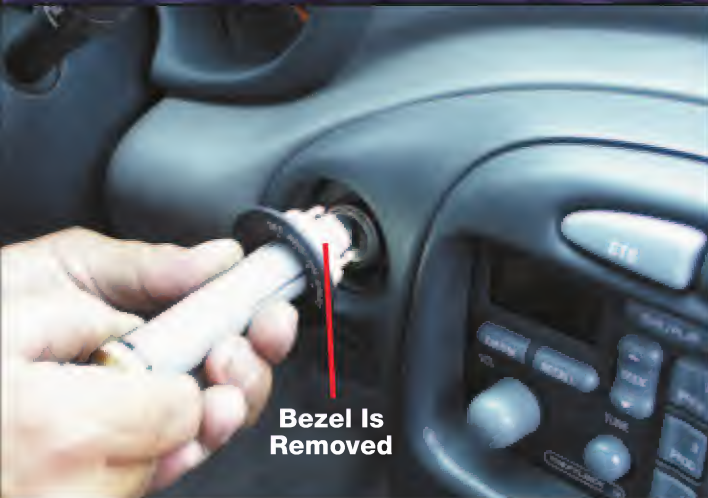
Japanese High Security

Some of the most profitable cars are also the trickiest to work on.

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#JAP - 1





4. Tighten the brass nut. Gently rock the tool up and down while pulling toward you to remove the bezel.



6. Place the hooked end of the removal tool against the edge of the ignition cap.



5a. The working end of the bezel removal tool.



5b. The tip after the nut has been tightened.

That was a lot easier than I thought it would be.

3. Position and hold the drill jig as you see in *photograph 8*. Position the alignment pin of the jig at the 3 o'clock position. The pin will seat in the notch on the outer edge of the plug. You will feel the pin engage the face of the ignition plug, as it drops into the notch.

Using a hand drill and the drill bit extension, drill a 3/32" diameter hole through the face of the ignition plug.

We have just completed the hole in *photograph 9*. *Photograph 10*, shows how well the extension works. Without the long extension, we would be fighting the steering wheel rim to keep the hole straight with the face of the ignition. When I looked at this photograph, I was sure thankful I didn't have to take that dash apart.

Get out your pocket scale, and check the length of the drill bit. It must extend exactly .048" from the tip of the drill bit extension. Any less, and you will not drill completely through the face of the ignition. Any more, and you risk damaging the sidebar. .048" is two thousandths less than a half inch. Check it before you drill. Tighten the setscrews to fix the bit in position.

Photograph 11, shows the drill jig being removed from a perfectly positioned hole. *Photograph 12*, illustrates how neat the hole really was. I'm impressed. If you peek in the hole, you can see the edge of the cylinder body and the untouched sidebar. Notice the cylinder retainer ramp. The ramp compresses the cylinder retainer as the ignition is slid into the dash, with the plug turned to the "on" position. We'll talk about the ramp again, so remember it.

4. Position the depth neutralizer in the lower right side of the keyway as you see in *photograph 13*. The tool must be aligned so that the bend will be away from the key opening. Continue to apply pressure toward the right side as you push the tool fully into the ignition. The pressure of the wafers will hold the tool in place. The depth neutralizer is designed to move the wafers of the 3 & 4 depth to a semi-picked position. The sidebar



7. The cap will ease right off.



8. Position the alignment pin of the jig at the 3 o'clock position.



9. Using a hand drill and the drill bit extension, drill a 3/32" diameter hole.



10. Without the long extension, we would be fighting the steering wheel.

tension tool is shown in this photograph. Notice the tip of the tool. The bend in the tip will apply the pressure to our sidebar as the wafers are manipulated. Notice also, the double bend in the tension tool. This establishes a shoulder, to prevent the tool from entering the sidebar compartment too far. The shoulder centers the tip of the tension tool over the sidebar.

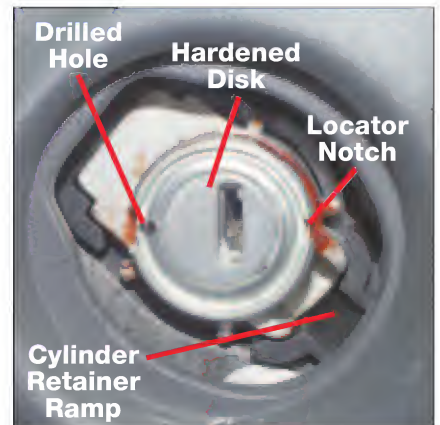
5. Insert the sidebar tension tool through the drilled hole, and into the sidebar

compartment. Insert the tool with the looped end at the 6 o'clock position. The handle of the tool will be pointed toward the floor. Begin by using the #5 rocker pick, as pictured in *photograph 14*. Insert the pick "fully into the keyway." Apply "very light" pressure to the sidebar by rotating the looped end of the pressure tool in a clockwise direction. Rock the pick up and down to move the wafers. As the sidebar drops in, the tension tool will move to the 8 or 9 o'clock position. The sidebar has been picked in *photograph 15*.

Easy does it. Light sidebar tension, and feel with the pick as you rock it up and down.



11. The drill jig being removed.



12. If you peek in the hole, you can see the edge of the untouched sidebar.



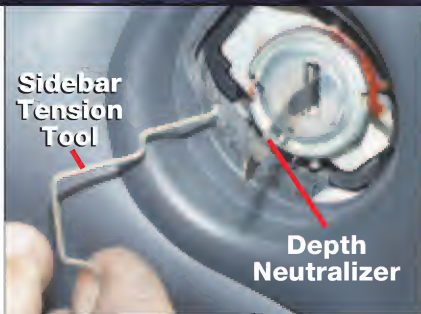
AutoSmart Advisor

Contains virtually every car and part known to man up through 2000.

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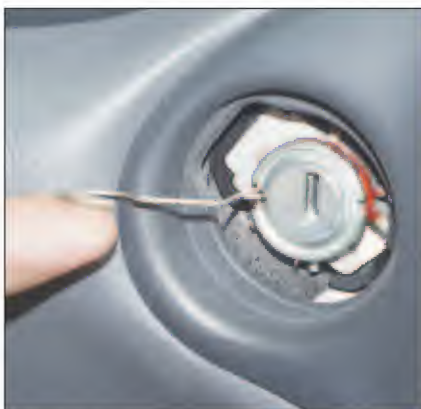
#ASA - 2000



13. Position the depth neutralizer in the lower right side of the keyway.



14. Begin by using the #5 rocker pick.



15. The sidebar has been picked.

When the sidebar picked, I removed the depth neutralizer and pick from the keyway. This was a mistake. The plug would not turn. The sidebar was compressed, and the plug would not turn. There is a square shaft, which engages the rear of the lock plug, when the key alarm actuator is not depressed by the tip of the key. Push the tip of the rocker pick to the rear of the keyway to eject the key alarm actuator, and the plug will turn.

6. The plug will only turn to the point where the tension tool is jammed by the rotation of the plug.

Maintain the turning tension on the plug, as you wiggle the tension tool out of the hole. The ignition will then be allowed to rotate clockwise to the "on" position.

As the ignition rotated to the on position, the windshield wipers started flapping, the air conditioning fan started blowing, and the radio burst into a deafening rendition of some thump-thump rock station. I nearly broke my fingers trying to silence the racket.

A cool breeze wafted through the open doors of the Grand Am. The feeling of relief, at having picked the cylinder to the On position, was almost as pleasant as the silence of the moment. We're almost home, the plug is in the removal position.

7. With the lock plug in the "On" position, push in on the ignition to relieve pressure on the lock cylinder housing retainer. Insert the lock cylinder release tool, with the curve toward the lock cylinder plug, as you see in *photograph 16*. The release tool is inserted into the cylinder retainer ramp, called out in *photograph 12*. The ramp is at approximately the 4 o'clock position. As you slide the tool into position, it will apply pressure to the housing retainer leaf spring, causing the retainer to retract into the housing. Ease the lock housing out of the dash. You can grip the face of the plug with a pliers or pry it up as we did, with a flat blade screwdriver. It starts a little hard, because you are unplugging the Pass Lock sensor as you lift the housing out of the dash socket.

Things were going so good, I had half a mind to push the lock back into the dash and try it a second time. I resisted the urge.

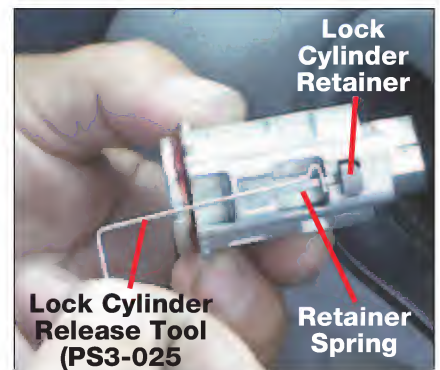
Photograph 17, shows the position of the Lock Cylinder Release Tool over the retainer leaf spring. Now that was a slick idea.

Photograph 18, shows the rear of the lock cylinder housing. The plug has been rotated to the removal position. The plug retaining lug is over the opening in the cylinder housing. Use a small flat blade screwdriver to depress the spring bolt into the plug, as you push the plug part way out of the housing.

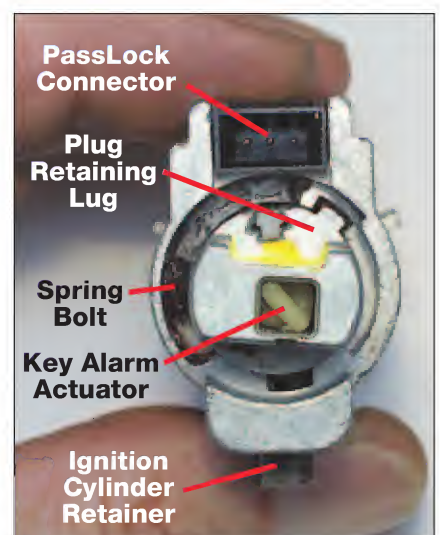
8. *Photograph 19*, shows the plug partially removed. The plug is still in the picked condition. The sidebar is visible on the far side of the plug. Hold



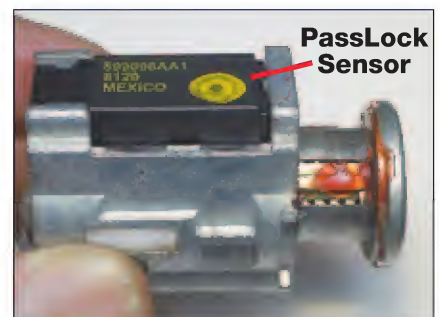
16. Insert the lock cylinder



17. The Lock Cylinder Release



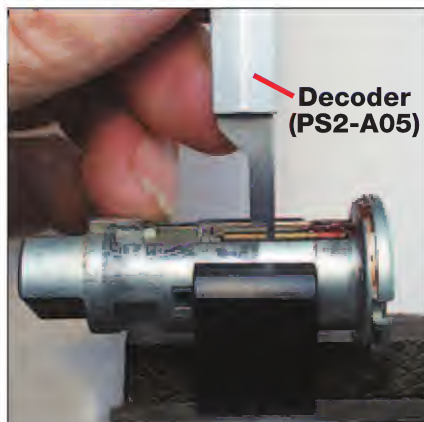
18. The rear of the lock cylinder



19. The plug partially removed.



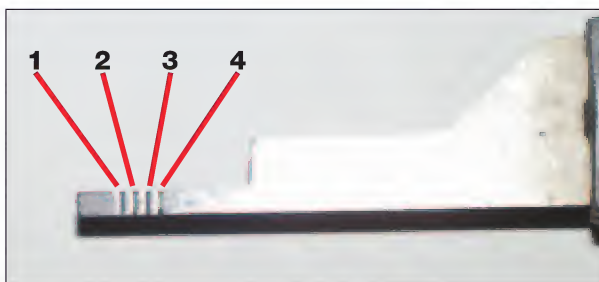
20. Decode wafers 1 thru 9 using the decoder.



21. Insert the picked plug into the fixture backwards.

thumb pressure on the sidebar, as you slide the plug completely out of the housing. Drop the plug spring bolt and spring on the bench, until you reassemble the plug into the housing. There is no need to re-pick this lock. Decode wafers 1 thru 9 using the decoder, as you see in *photograph 20*. If you have an SPC Clamp-King, 10 wafer GM cylinder vise, insert the picked plug into the fixture backwards, as you see in *photograph 21*, to hold the sidebar depressed. You can then read the wafers without the possibility of loosing your pick and having to pick the plug again.

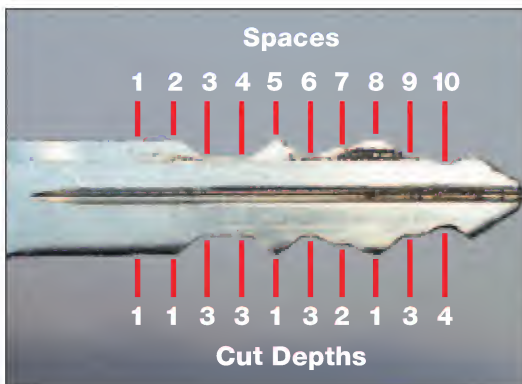
Photograph 22, shows a detail of the decoder tool. The engraved lines on the tip of the tool will align with the edge of the spring cover to reveal the cut depth of the wafer being



22. The detail of the decoder tool.



23. The code on the ignition housing.



24. The cut key for this ignition cylinder.

measured. Remember, the ignition contains cuts in positions 1 thru 9. The tip cut will only be found in the trunk cylinder and glove box. In my case, the code was used to find the tip cut. But I really didn't need it, as the ignition key will not operate any other locks on this vehicle.

Photograph 23, shows the code on the ignition housing. The code is BX22. It took me a while to figure out that the first digit of the code was a

"B." A-1 did us a service by including the decoder in the service kit. It was easier to decode the wafers than it was to read the code stamped on the housing.

Photograph 24, shows the cut key for this ignition cylinder. The cuts are 1133132134. Cut

number five, a one depth between two three depths, was the tripper that made picking this cylinder a little challenging.

9. Align and reassemble the chrome cylinder cap and plastic filler onto the lock plug. Clinch the cap in position. Insert the working key into the plug, assemble the spring and spring bolt into the side of the plug, and assemble the plug into the lock housing. Carefully reinstall the ignition cylinder into the dash and replace the plastic bezel. Observe the position of the alignment lugs on the backside of the bezel, and snap it in place. The job is complete.

After making the ignition key for this auto with the A-1 Service Kit, I have to say, "I'm impressed." The tools were well designed, well made, and they exceeded my expectations in their efficiency. I can't wait to try

their 10-cut column ignition service kit.

For more information on A-1 tools contact:

*A-1 Security Mfg. Corp.
 3001 W. Moore St.
 Richmond, VA 23230
 Phone: (804) 359-9003
 Fax: (804) 359-9415
 E-mail: fmcc@erols.com
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#ICSF - 1



SiteLine Intelligent Lockset



by Sal
Dulcamaro,
GML

Medeco® is entering the ever expanding market of self contained (non-hard wired) electronic locks. Many locks in this general category have keypad (push-button) operation while others use electronic keys. Medeco's new product is the SiteLine® Intelligent Lockset. It will make use of the SiteKey technology (electronic keys) to operate the locks. It has a self-contained power source (batteries) and is programmable with audit trail capability.

Photograph 1, shows the SiteLine Intelligent Lockset from the exterior side of a door. It is a lever handle lockset, which uses a Medeco interchangeable core as its mechanical bypass. The upper unit contains the electronic contacts, which transfer data from the electronic SiteKey to the processor unit mounted on the interior side of the door. The upper unit is contained within a tapered metal collar identical to the style used by Medeco deadbolts. That unit is installed much like a Medeco deadbolt. Wires are run from the unit through the door to the processor inside.



Capabilities and Functions

Photograph 2, shows a SiteKey unlocking the SiteLine Intelligent Lockset. While it is compatible with other hard wired security products that can be operated with the SiteKey, it is well suited to circumstances where running wires to a particular location are unnecessarily difficult or impractical. Programming and auditing are done in conjunction with powerful and easy to use Windows based software that can control up to 10,000 users. While the software can manage a large number of users (for many different locksets), individual locks will accept up to 1,200 individual users.

Used in conjunction with other locks, users for one lock may not be given access (with their SiteKeys) to specific other locks. Users are defined by programming information into the unit similar to how the individual SiteKey is used to actually open the lock. Programming is accomplished in a somewhat unique manner by means of a "portable database." Instead of using a laptop computer or similar portable microprocessor unit to directly input data, information is transferred through a special type of SiteKey. An electronic Setup Key with a bow (key head) colored red has the ability to store lock programming data transferred to it from a computer. It is not necessary to bring a portable computer or other bulky device directly to the lock itself.

Likewise, audit trail data can be recovered from the lockset with a different blue colored Audit Key. Once the audit data is transferred from the lock to the Audit Key, the Audit Key is brought back to the computer (that contains the end user administrative software) and the audit data is transferred to the computer so it can be viewed.

The SiteLine Intelligent Lockset can retain up to 764 transactions (or events). Unlike mechanical locks, the electronic SiteKey can be restricted for access at specific time periods. It can be assigned one of five time schedules, three of which are user definable. An audit of the lock would indicate someone trying to gain access at times that he or she was not authorized.

A view of the interior side of the door is shown in *photograph 3*. The processor or brains of the unit is secured on the inside of the door to minimize the possibility of tampering or physical damage. Nonvolatile memory allows programming and auditing data to remain even if the batteries drain completely. Although designed to be powered by batteries, it can also be hard wired for high usage applications.

Flexibility of Installation and Retrofitting

The upper unit on the outside can be installed over a fairly wide range within the space of the interior unit on its opposite side. As such, it can cleanly retrofit hardware previously removed. In most cases the upper unit of the SiteLine Intelligent Lockset can be located in that same position (if upgrading from other lock hardware) so there are no unsightly holes left behind. A deadbolt within that same range of space could also be removed so as to install the unit and conceal pre-existing holes.

Mechanical/Intelligent Keys

The SiteKey commonly integrates a mechanical key blade operation with electronics in the head of the key. Even though this lockset is designed to use only the electronic key for standard access (the bypass is still mechanical), the electronic head will mate with either a Medeco high security angle cut key or Medeco KeyMark key. That means that the electronics in the head could be used to operate the SiteLine Intelligent Lockset, while the cut key could be used to operate a strictly mechanical lock, possibly for the users individual office or some other mechanical lock access. For those with merely electronic access, the non-electronic part of the key would consist of a dummy key, providing no access to any other mechanical lock.

*For additional information on this and other Medeco products, call 800/839-3157. **TNL***



2.
*A SiteKey unlocking
the SiteLine
Intelligent Lockset.*



3.
*The
processor,
or brains
of the
unit, is
secured on
the inside
of the
door.*



1998 Honda Odyssey

part 2



by
Michael Hyde

We conclude this month's Honda Odyssey covering the hatch, glove box and programming procedures.



Hatch



2. Remove the 2 Phillips-head screws on the panel near the latch.

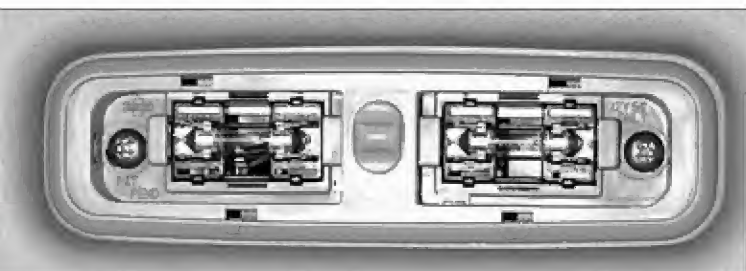
1. The rear hatch lock cylinder is to the right of the license plate.



3.
Remove the 2 screws that secure the pull handle.



4. There is a plastic lens for the rear hatch panel light.



5. Gently remove the lens and then you will have access to the 2 Phillips-head screws to remove.



6. The panel can now be unsnapped and removed. Don't forget to disconnect the wiring.



7. To remove the lock cylinder from the rear hatch you must first remove the electronic linkage from the rear of the lock.

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8. Remove the 10mm bolt that secures the lock cylinder to



9. You must rotate the cylinder a little bit to line it up with the ward in the sheet metal for removal.



10. The lock cylinder removed from the van.



11. The face cap is reusable and will slide off with a little work.



12. Remove the C-clip on the rear of the cylinder and make note of its position and the position of the cylinder spring.

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13. The cylinder plug can now slide out, it is not warded.



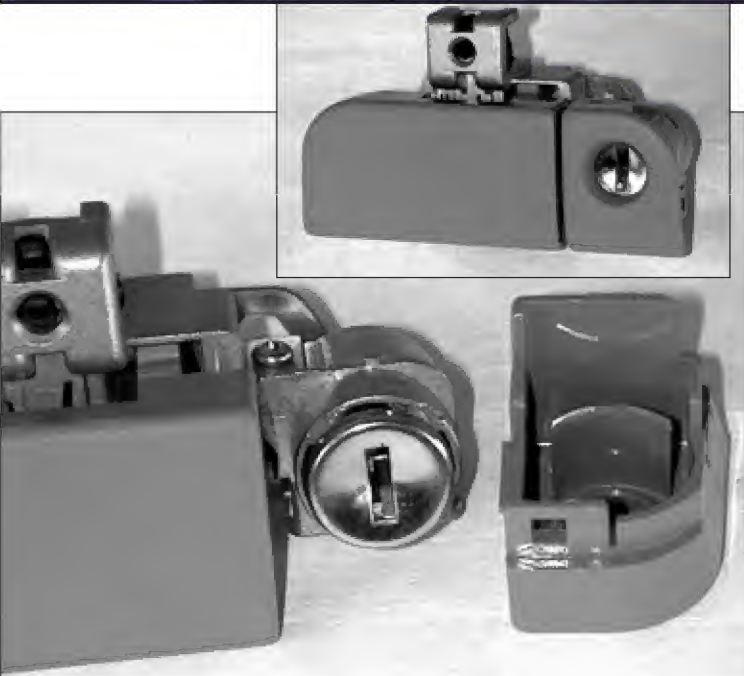
14. The rear hatch lock cylinder contains 7 tumblers in positions 2 through 8.



15. The glove box lock cylinder is part of the handle and latch assembly.



16. To disassemble first remove the 2 screws on the inside of the glove box.



17. The plastic trim unsnaps from the front of the lock assembly.

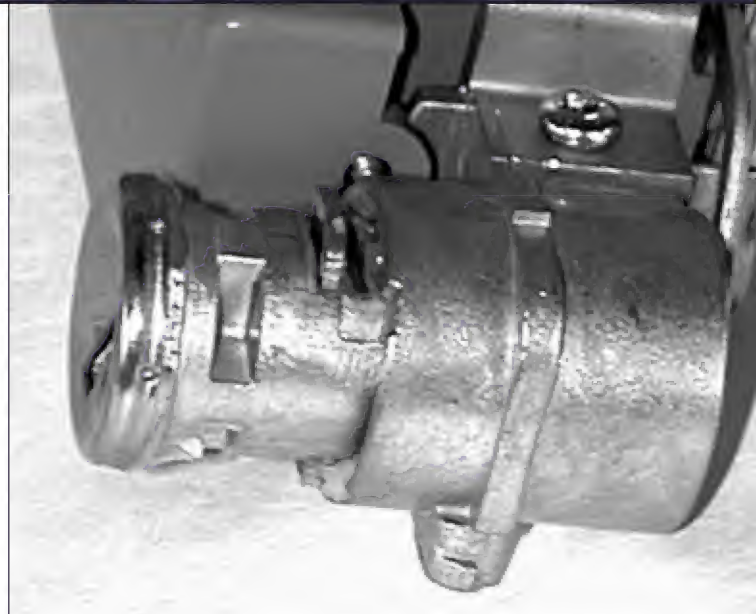


18. There is a code stamped on the side of the lock. The bottom four numbers is the code.



19. There is a one way metal ring fastener on the back of the plug that connects with the small linkage rod. Gently use a screwdriver to work it off. Next remove the C-clip on the back of the plug.

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20. The cylinder plug will now slide out, as it is not warded.



21. The glove box lock contains 5 cuts in positions 4-8.

PROGRAMMING TRANSPONDER KEYS WITH A DEALER DEVICE:

The dealer uses a diagnostic device called the PGM Tester. This device is only available from Honda to Honda Dealers. Most dealers I have talked to think key programming is a pain in the neck and would rather not be bothered with it. Here is the procedure they must go through to program in the keys.



22. The PGM Tester, Dealer cost on the unit is around \$3,100.



23. Locate the factory computer interface to hook up the PGM Tester. On this van it is on the right hand side of the center console, all the way forward.



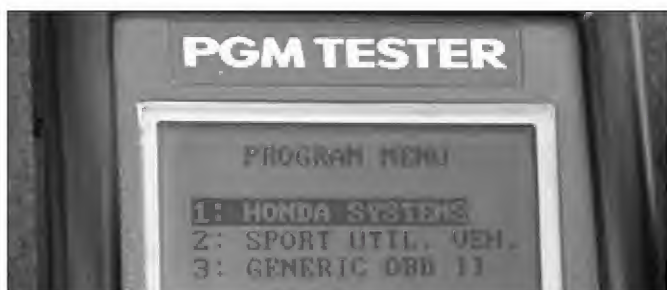
27. The remaining portion of the VIN must be entered.



24. A view of the start up screen.



28. The odometer reading must be entered.



25. Select "Honda Systems".



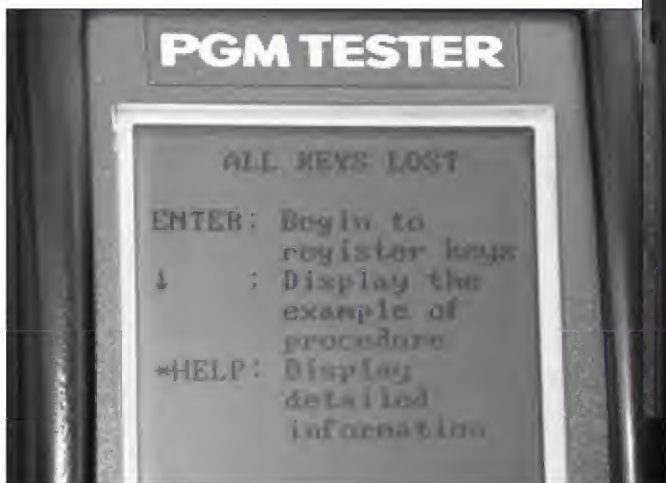
29. The general menu is displayed and for key programming we will want to select number 5 "IMMOBI".



26. The PGM Tester checks to see what type of vehicle it is hooked up to.



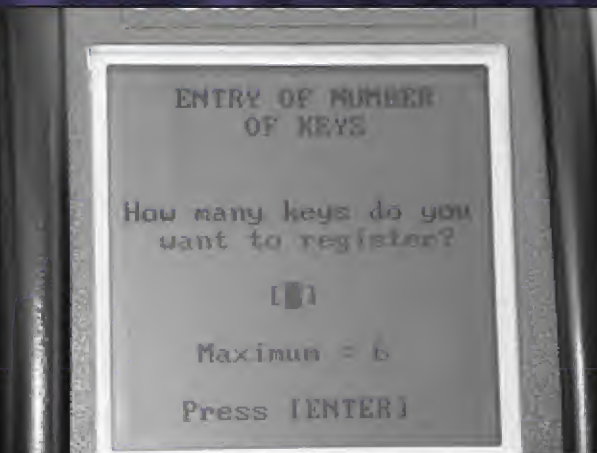
30. The Key Menu appears and we will want to select "All Keys Lost".



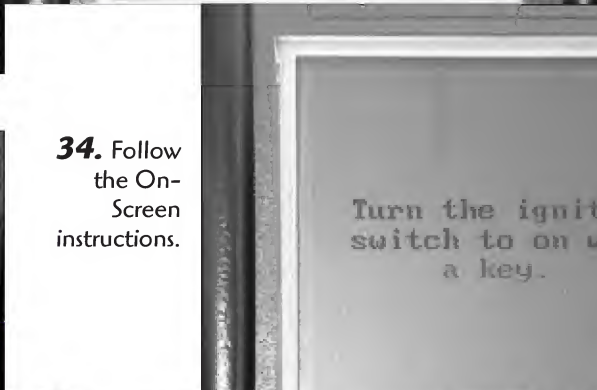
31. Press Enter to continue.



32. Enter the vehicles PCM code (Pin Code) that is only available to Honda Dealers through their HondaNet computers.



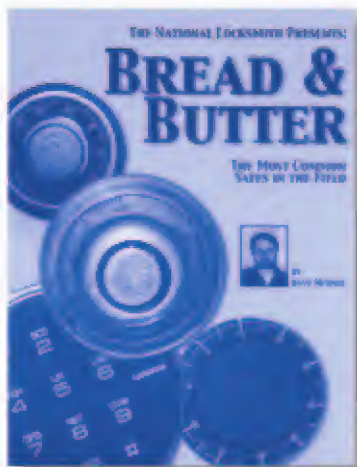
33. Enter the number of keys you wish to program.



34. Follow the On-Screen instructions.



35. Follow the On-Screen instructions.



Bread & Butter

Now here is one amazing value!

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#BB - 01



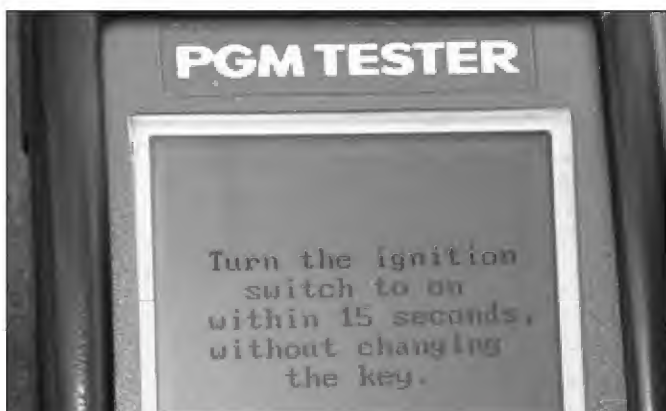
36. Follow the On-Screen instructions.



37. Follow the On-Screen instructions.



38. Follow the On-Screen instructions.



39. Follow the On-Screen instructions.

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40. Follow the On-Screen instructions.



41. Follow the On-Screen instructions.



43. Follow the On-Screen instructions.



42. Follow the On-Screen instructions.



45. Follow the On-Screen instructions.



46. Shows the Immobilizer Indicator Light.

MAKING FIRST KEY

This van is equipped with a transponder system. A dealer device is necessary to program keys into the vans computer. Honda has a temporary override called the "Emergency Brake Code".

1. Make a mechanical key from the code on the glove box lock or from the door lock.
2. Have the customer get the "Immobilizer Brake Code" from the dealer or Honda Customer Relations. You will need the VIN. This is a five digit number code. Each Honda vehicle has a different Brake Code.
3. Turn the ignition switch ON.
4. Have the Brake Code in front of you. To enter the first number of the Brake Code, press and release the brake pedal the same number of times as the first number in the Brake Code. For example if the first number in the Brake Code is a 2, press and release the brake pedal 2 times.
5. Turn the ignition switch to the LOCK position.
6. Within 30 seconds, turn the ignition switch to the ON position. For example if the 2nd number in the Brake Code is a 4, press and release the brake pedal 4 times.
7. Turn the ignition switch to the LOCK position.
8. Within 30 seconds, turn the ignition switch to the ON position. For example if the 3RD number in the Brake Code is a 1, press and release the brake pedal 1 time.
9. Turn the ignition switch to the LOCK position.
10. Within 30 seconds, turn the ignition switch to the ON position. For example if the 4th number in the Brake Code is a 3, press and release the brake pedal 3 times.
11. Turn the ignition switch to the LOCK position.
12. Within 30 seconds, turn the ignition switch to the ON position. For example if the 5th number in the Brake Code is a 5, press and release the brake pedal 5 times.
13. Turn the ignition switch to the LOCK position.
14. After entering the fifth number, the Immobilizer Indicator Light on the dash should flash 5 times and then shut off. Sometimes the light will not flash at all and the vehicle will still start. This procedure must be repeated if the vehicle is turned off for more than 10 minutes. If the customer finds their original transponder key, do not try to use it in the ignition until the vehicle has been off for more than 10 minutes.

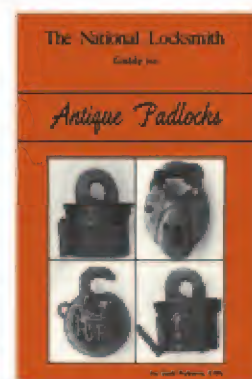
Antique Padlocks

Finally there is a book to give you all the information you need about old interesting locks.



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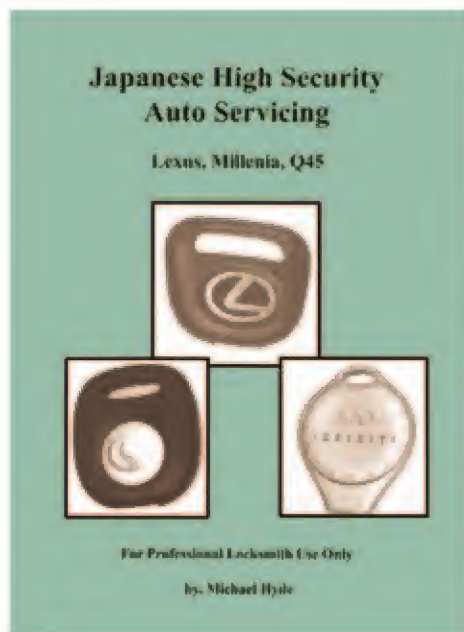
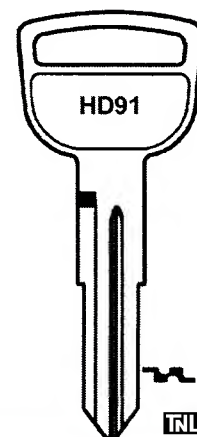
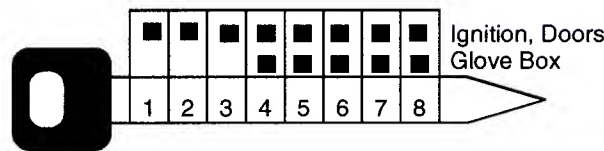
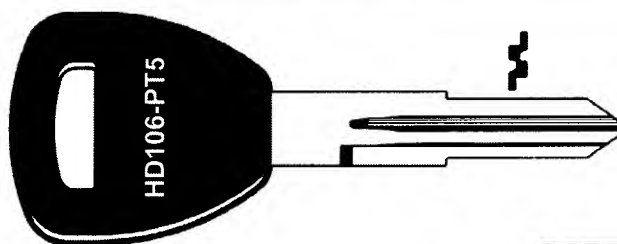
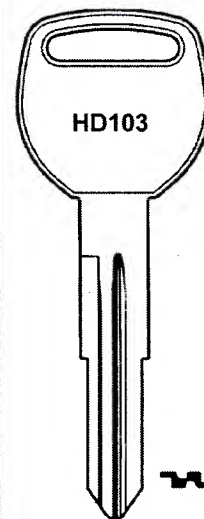
#PAD - 1



B CODE SERIES: 5001-8442									
Bow		SPACING						Tip	DEPTHS
1	2	3	4	5	6	7	8	Cut to Cut: .0845	
.108	.192	.277	.361	.446	.530	.615	.699		
Key Blanks:		ILCO: X181, X190, X183, X208, HD90. HD92, HD94, HD101, HD103, HD106-PT5				SILCA: HON47, HON48, HON53, HON54			
Reed Codes:		09-02-211				HPC 1200 CM:		XF74, CF74	
Curtis Clipper:		Cam HD-12X		Carriage HD-12AX		ITL MFG:		510	
Pak-A-Punch:		PAK-H1				M.A.C.S.:		4	

1	.307
2	.294
3	.282
4	.269
5	.257
6	.244

DEPTHS	
1	.307
2	.294
3	.282
4	.269
5	.257
6	.244



Japanese High Security

Some of the most profitable cars are also the trickiest to work on.

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#JAP - 1

Introduction to Master Keying

Goals

Through this first lesson you are going to be introduced to some of the working terminology of a master key system, as well as an understanding of its purpose and limitations.

Terms

Bitting - The numbers representing the depths and spaces of a key based on a manufacturer's specifications.

Change Key - A key that operates one lock or group of keyed alike locks in a master key system.

Cross Key - The deliberate keying of a lock to two or more keys that normally do not operate together. (Compare Interchange.)

Cross Keyed With its Own Key - Cross keying a lock that has its own change key.

Cross Keyed Without its Own Key - Cross keying a lock that does not have its own change key.

Grand Master Key - A key that operates two or more groups of locks each with their own master key.

Grand Master Key System - A master key system consisting of three levels of authority.

Great Grand Master Key - A key that operates two or more groups of locks each with their own grand master key and master key.

Great Grand Master Key System - A master key system consisting of four levels of authority.

Interchange - The unplanned operation of a lock by more than one key.

Keyed Alike - Keying two or more locks to the same key.

Maison Keying - The cross keying of a lock operated by most or all of the keys in a master key system.

Master Key - A key that operates all the locks keyed to the change keys within its master key group.

Master Key Group - All of the keys beneath a given master key.

Simple Master Key System - A master key system with two levels of authority.

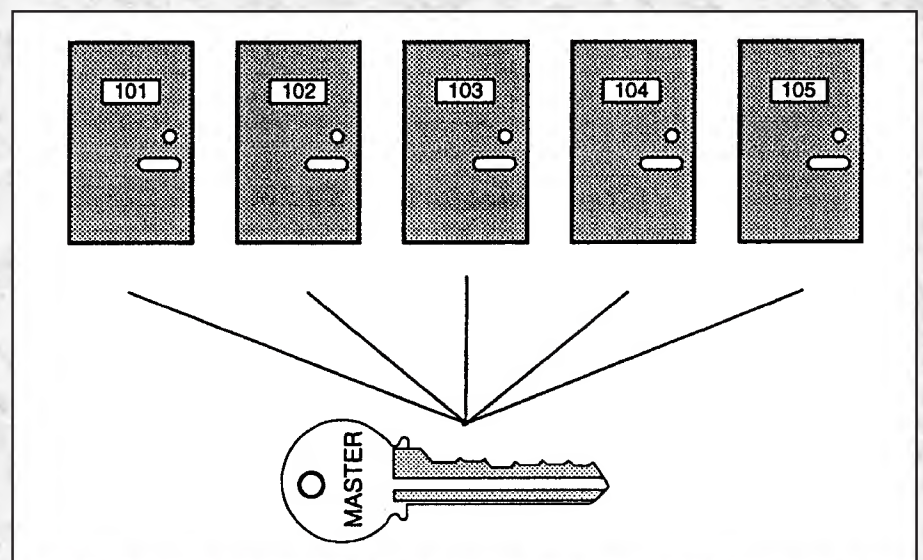
Master Keying, when it is properly set up, is a carefully planned system of controlled access. The goal of master keying is to create a system that permits a person the convenience of accessing different areas of a building to which they have authorization, while at the same time denying access and maintaining security to areas for which they are not authorized. (See illustration 1.)

Master key systems are in use in virtually every hotel, school and

university, hospital, apartment or condominium complex, government area and office building in this country, as well as in many chain store operations. They are in use because they satisfy two basic needs-security and convenience.

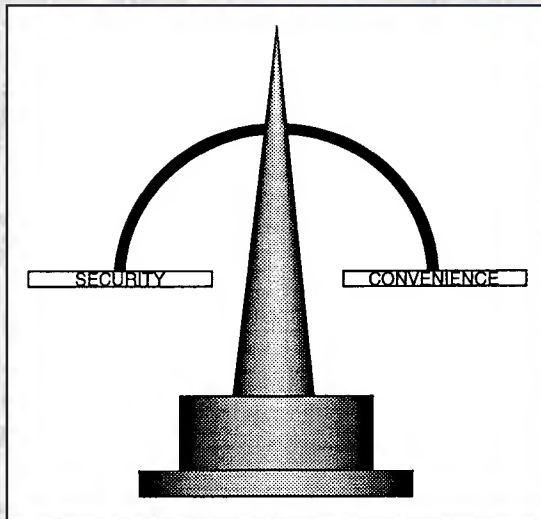
At first glance these two may seem to oppose one another, but the simple fact is that one without the other is virtually useless. For example, one way to theoretically gain security is to have each door or area of a building keyed to its own key. However, a person needing access to several areas may have to carry several keys. If one key is lost or stolen, it might not be discovered for some time. Or, in a situation where ease of access is

Part I



1. The goal of master keying is to create a carefully planned system of controlled access.

2. There must be a balance of Security vs. Convenience when creating a master key system.

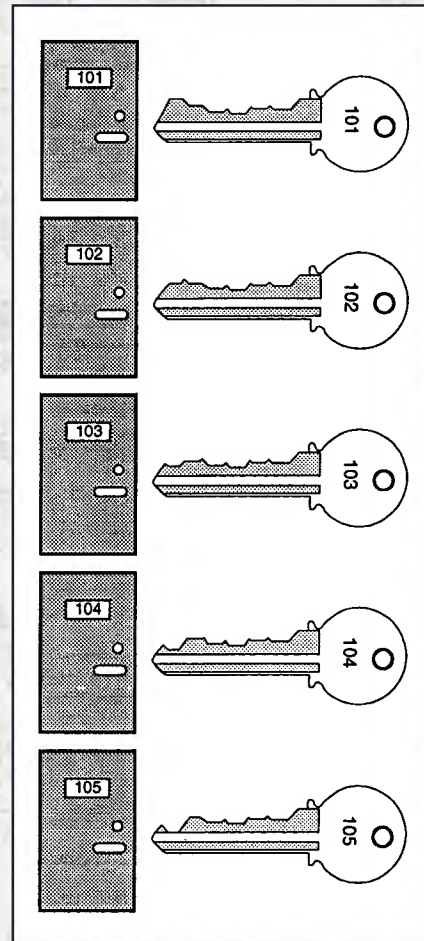


critical, sorting through a group of keys may not suffice. In both instances convenience outweighs the need for security; convenience is in control of the situation, and security takes a back seat. On the other hand, convenience without security may create circumstances where valuables are left unprotected.

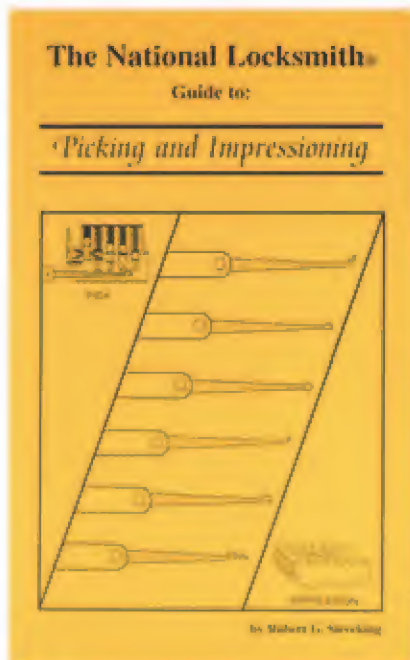
Master keying allows for a proper balance between the two. By using master keying techniques, a system can be created where an individual is

permitted quick and easy access to all authorized areas, perhaps with only a single key. Yet the prohibited areas are left secured from those without authorization and the proper key. Security must be balanced with convenience. (See illustration 2.)

When a guest checks into a hotel, they receive a guestroom key that opens



3. The lowest level key of a master key system is the Change Key. Each key fits an Individual lock or a group of locks that are keyed to that key. These keys are given to each of the hotel guests to allow them access to their room only.



Picking & Impressioning

Here is the most complete book ever published on picking and impressioning locks! You will have everything you need to know about how to open almost every kind of lock that can be picked.

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#PI

one door in the entire hotel. If the room has a front and back door, that guest's key may open both doors.

In master keying terms, that guest's key is called a Change Key. The two locks (front and rear) are Keyed Alike. (See illustration 3.)

Every morning, maids are expected to clean all the guestrooms. Each maid is assigned a floor of rooms as her responsibility. Rather than carrying a separate key for each room, each maid carries a key that opens all the rooms on her floor. That key, however, does not open rooms on any other floor. Each of these keys is called a Master Key. (The hotel employees probably call it a "Floor Master" to show its level of authority.) (See illustration 4.)

As each room in a given building has been cleaned it is inspected by a maid supervisor. Each supervisor is assigned all the floors in a specific building, and is not allowed access to attached or adjacent buildings of the hotel. For that reason, each maid supervisor has a key that opens only rooms in the building assigned to them. These keys are called Grand Master Keys and control a Master Key Group. In this case, all of the maids' floor masters and all of the change keys for the individual rooms of a particular building are the Master Key Group. (See illustration 5.)

The employees probably call the Grand Master Keys the "Building Masters" since they operate all the locks in a particular building. But remember, the "Building Master" is not always the Grand Master Key. Building employees assign terms such as these to show the key's position in the institution, whereas terms such as Master, Grand Master, etc. designate a key's authority level in a master key system.

To continue with our illustration: the head of housekeeping has the final responsibility of overseeing not only the maids' work, but the supervisors' as well. For this reason, the head of housekeeping has a key that operates all guestroom locks, on all the floors of all the buildings. In other words, this key needs to operate not only the Change Keys and the Master Keys, but, also, all the Grand Master Keys. This key is called the Great Grand Master key. (See illustration 6.)

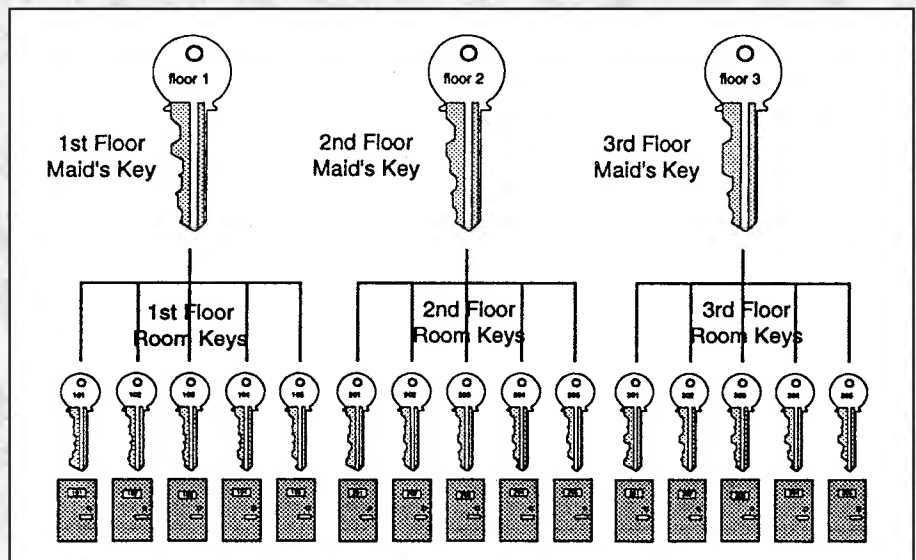
Usually, somewhere in the building is a linen room where each maid finds clean linens and towels for the rooms.

This room requires that each of the maids' Master keys, as well as all the supervisors' Grand Master keys, and the head of housekeeping's Great Grand Master key all open that lock.

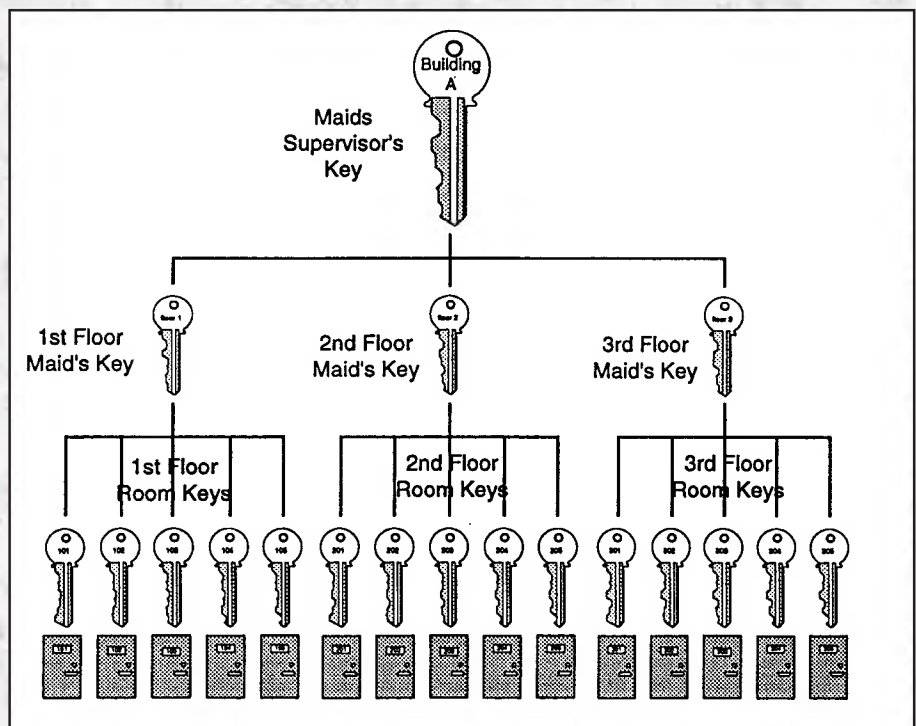
Once a day, a local laundry picks up the dirty linens. Because this is done in the presence of the head of housekeeping, this room does not have its own Change Key and no individual key is issued to the laundry

people. In master keying terms this room is Cross Keyed Without its Own Key. If an individual or Change Key to that lock had been issued to the laundry people, it would be called Cross Keyed With its Own Key.

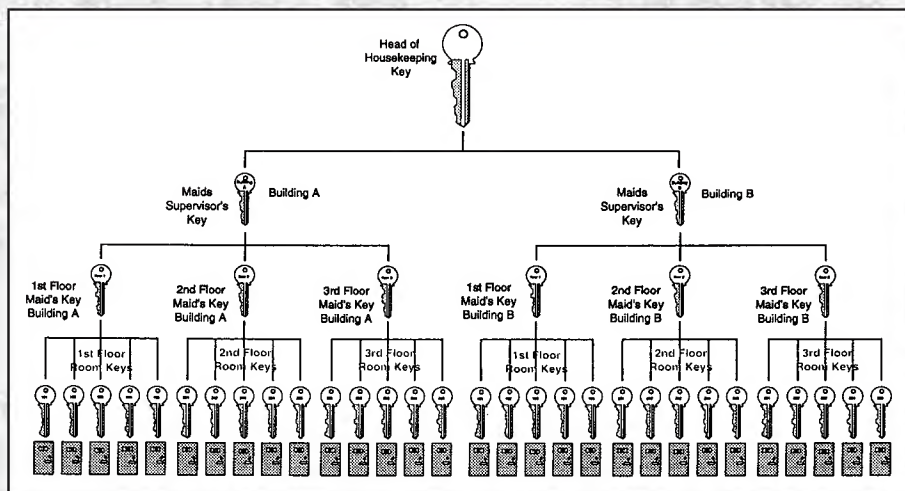
The term Cross Keying is used to describe a lock where keys not normally intended to operate together, do. Cross keying is one of the rare instances where a term describes the status of a



4. The next level key is the Master Key. These keys operate a group of Change Keys. In the illustration above, each floor has a Master Key that fits every room on that floor. However, the Master key for one floor does not open any room on any other floor. Each maid is given a key to their floor only. A Master Key and the Change Keys below it are called a Master Key Group.



5. The next level key is the Grand Master Key. The Grand Master Key operates all the Master Key groups below it. This key is given to the maids' supervisors and controls all the locks in their building.



6. The next level key is the Great Grand Master Key. This key operates all of the Grand Master Keys and the Master Key groups. The head of housekeeping requires access to all the areas and can do it with a single key - the Great Grand Master Key.

lock, and not the level of a key. Cross keying is intentional. Cross keying that is not intentional is called Interchange and is to be avoided at all costs. Avoiding interchange is just one purpose in creating a master key system.

A common type of cross keying is found in many apartments and hotels. Here, each tenants' room key may also operate a common entrance door

lock. This type of cross keying is called Maison Keying.

In another example, a secretarial pool needs access to the stockroom to draw supplies. Those authorized receive a key that opens both the secretarial offices as well as the stockroom. The stock person, however, requires access to the stockroom only and not the secretarial offices.

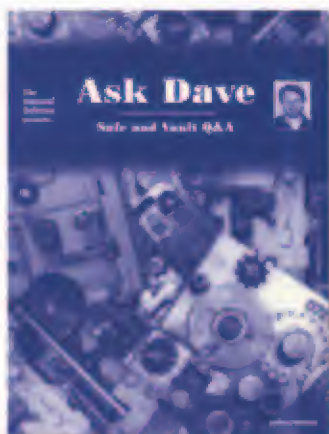
Therefore, he is give a key that fits the stockroom only. In this case, the stockroom is keyed not only to its own key but to the secretarial key as well. The stockroom lock is said to be cross keyed with its own key. These are only a few examples of cross keying.

For our hotel example the master key system reached the level of a Great Grand Master Key System, or Level IV system. Similarly, if there is one less level (if only one maid supervisor existed, for example, and there was no level above) the system is called a Grand Master Key System, or Level III system, since that is the highest Master Key in the system. And, finally, if the maids' Master Key is the highest key, this is called a Simple Master Key System, or Level II system. (See illustration 7.)

In preparing a master key system, we lay out charts that show us the acceptable keys to use within the system. A simple system might look something like this:

MASTER KEY: 35241	
3542335425	35427
3546335465	35467
3562335625	35627
3566335665	35667

Ask Dave



You asked.
 He answered.
 This is safe
 and vault
 Q&A with
 an attitude.

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#AD - 1

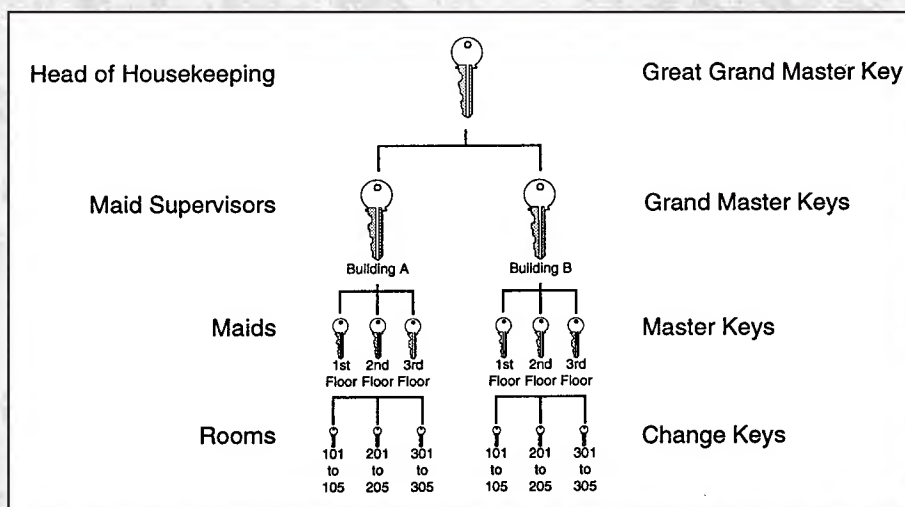
AutoEdge



This CD contains over
 750 pages of automotive
 locksmith service.

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#AE - CD



7. There are four levels to the hotel master key system: The Great Grand Master that controls all the locks, the Grand Master that controls all the locks in a single building, the Master Key that fits all the rooms of a single floor, and the Change Keys that fit the customer rooms.

3582335825 35827
3586335865 35867

Each of the sets of numbers represents the depths used for each space or cut on a key in the system. The key 35467, for example, can be used as one of the room keys for a hotel, or one of the office keys for an office complex. Each set of depths

(such as the 35467) is referred to as the Bitting.

One of the reasons for a chart is to make sure interchange does not occur between keys in the system. Interchange is when a key operates a lock it is not intended to operate.

Summary

TNL

The purpose of a master key system is to allow authorized personnel the convenience of controlled access only into those areas where they are allowed.

When properly created, the master key system balances this convenience with security. These are the two aims of master keying.

In a master key system, a lock is keyed to fit more than one key and may even be cross keyed to fit more than two keys. However, no key or lock within a system can interchange.

To make sure there is no interchange, a chart full of numbers representing the different keys in the system is created. These numbers are called bittings and represent the depths of the different cuts on the key.

Many different levels of master key systems can be created to fit the need of the customer.

Material presented is excerpted from the Basic Masterkeying Correspondence Course; a course on the principles and terminology of master keying published by The National Locksmith.



#IC - 2001

InstaCode

Your total code and code machine management program.



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Literature & Brochures

ABH Push/Pull Hardware

ABH 6700 series hospital push/pull trim can be used on most manufacturers' mortise lock. With no additional door preparation, existing mortise locks with knobs can be quickly and easily changed to push/pulls for ADA compliance. The trim can be mounted up, down, horizontally or any combination without any changes in the field. This unique product is available in most BHMA finishes and can be shipped on the target 3 (3-day shipping) program.

To receive a copy of the literature on this innovative product contact: ABH Manufacturing, Phone: (847) 437-9901; Fax: (800) 932-9224; E-mail: abhinfo@abhmf.com, circle 344 on Rapid Reply.

Adrian Steel Van & Pickup Equipment

Adrian Steel had announced their new line of walk-in van equipment for cube and step vans. Six new trade packages have been created, designed specifically for six different applications including locksmith service. A custom interior can also be designed around specialized needs by mixing and matching the modular components with new storage modules and adjustable shelving, all designed especially for walk-in vans.

For a free full line catalog call: 800-677-2726 or circle 345 on Rapid Reply.

58 • The National Locksmith



Jensen Tools 1999 Catalog Updated

Jensen Tools has just released an updated version of their Master Catalog for spring 1999. This 308-page, full color catalog contains many new products, including the recently introduced line of Jensen brand hand held meters.

In addition to 50 pages of Jensen original tool kits, the new catalog features products from all major manufacturers including test equipment, power and specialty tools, wire and cable, equipment for soldering, telecommunications, computers and much more.

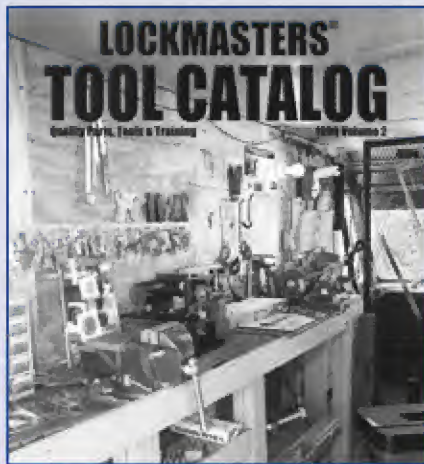
Jensen offers a 30-day Unconditional Guarantee on all products, with special Lifetime Guarantee on all Jensen brand hand tools. Other benefits enjoyed by Jensen customers include: same day shipping for orders over \$100; free technical support; in-house 24 hour Calibration Certification on selected meters; an expanded 24-hour/7 day technical FaxBack® Service; and a complete online catalog with secure ordering.

For a free copy of the catalog call: 800-426-1194; Fax: 800-366-9662; E-mail: jensen@stanleyworks.com; Web: www.jensentools.com, circle 346 on Rapid Reply.



Lockmasters New Tool Catalog

Lockmasters is continually searching for new tools to make life easier for you. In this latest issue you will find great new products from A-1, High Tech, HPC, ILCO, LAB, Tech-Train, and of course, Lockmasters®, Inc. To order your free tool catalog, please call 1-800-6540637, ext. 498 or you may make your request on our new website at www.lockmasters.com. Circle 347 on Rapid Reply.



Locknetics Product Line Brochure

Locknetics Security Engineering has published a revised, 28-page product-line brochure. The catalog fully describes the companies' line of access control solutions, from electromagnetic and electromechanical locks, to an expanded line of electric and battery-powered strikes, the CM and PRO Series of programmable locks, SmartExit™ electronic exit devices, power supplies, and more.

Many of Locknetics stand-alone and hard-wired access control products include onboard, micro-processor-based computer management. Programming is accomplished either directly at the lock, or via portable or palmtop PC. A choice of access control interfaces is offered, from keypad codes and TouchEntry™ datakeys to the new, ABA-standard, Track 2 card reader and proximity card reader interfaces.

Other features new to this edition include an expanded line of hard-wired and stand-alone, battery-powered strikes, outside trim options for SmartExit devices, additional value-packaged PRO-Line products, such as mini-keypads with on-board controllers, SmarTime™ multiple event programmable cabinet lock systems. The brochure also provides icons to help readers easily determine the

characteristics of individual products and/or products families.

For further information, contact: Locknetics Security Engineering, 575 Birch Street, Forestville, CT 06010; Phone: 860-584-9158; Fax: 860-584-2136, <http://www.locknetics.com>, or circle 348 on Rapid Reply.

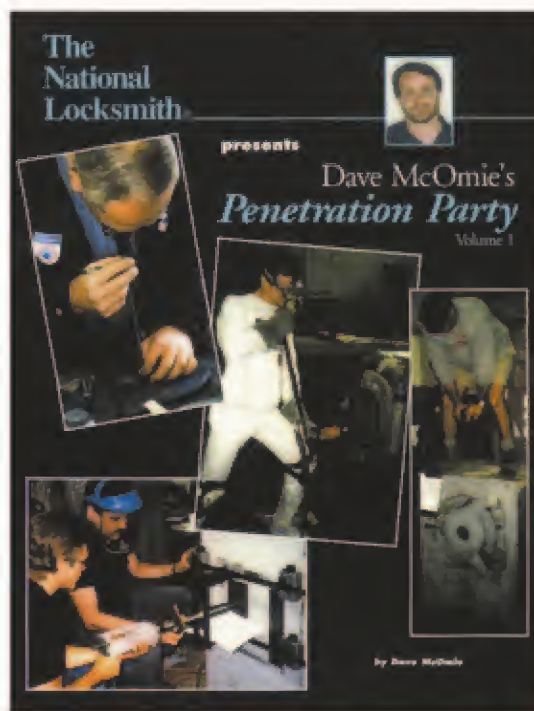
Locknetics Card Reader Brochure

Locknetics Security Engineering has released a brochure on its new Card Reader Locks, Locknetics CM Series, cylindrical and mortise-style electromechanical card reader locksets

provide three, programmable methods of access: full-swipe magnetic card reader, keypad code, and/or TouchEntry™ data key reader. The integral card reader works with most new or existing ABA standard, phone, credit, and "one-card" systems. Their versatility makes these locks ideal for educational institutions, healthcare, corporate offices, and commercial facilities, particularly where a "one-card" system is already in use.

The eight-page brochure fully describes the CM5100 (cylindrical) and CM5500 (mortise) CRS and CRT locks. Installation or retrofit is easy with most standard door preps, with no need for additional wiring. Card Reader Lock

Penetration Party



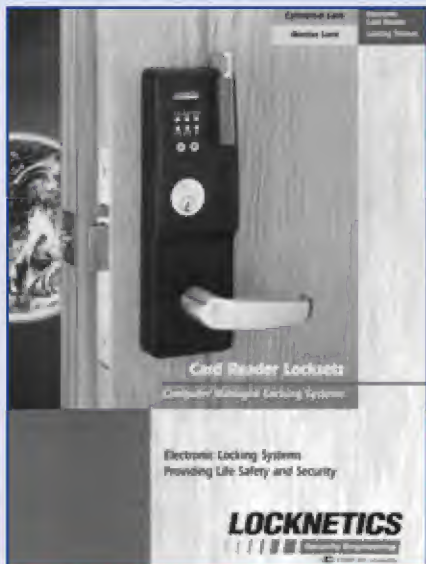
- Uncensored! • The Safes! • The Tools!
- The Action! • The Perfect Openings!
- The Bloopers and Blunders!
- The Slick Tricks!

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#PP - 1

features include: a solid-state micrometer powered by four, common AA batteries that provide up to 80,000 activation's; a rugged, simplified mechanical design with the patented TorqDefender(tm) clutch-controlled outside lever; and a 3/4" deadbolt or the 1" AutoBoldt(tm) automatic deadbolt offered on the mortise locks.

For further information, contact: Locknetics Security Engineering, 575 Birch Street, Forestville, Connecticut



06010; Phone: 860-584-9158; Fax 860-584-2136, <http://www.locknetics.com>, circle 349 on Rapid Reply.

Omnia Expanded Cabinet Hardware Brochure

Selecting a cabinet hardware is easier than ever with Omnia Industries' new consumer pamphlet. Over 50 families of knobs, pulls and handles are represented, in traditional, contemporary and ornate styles.

Whether consumers chose to match, contrast or complement their home or office's existing doorknobs and levers, Omnia's newly expanded cabinet hardware collection affords design options for every room.

Crafted in solid brass, each design family within the line is available in a range of finishes, including brass and bronze options, chrome, pewter and nickel choices, and vintage finishes featuring weathered antique patinas of days gone by.



In addition, transparent, satin, colored clear and colored frosted glass knobs, as well as those of transparent and satin crystal, are also available, with solid brass bases.

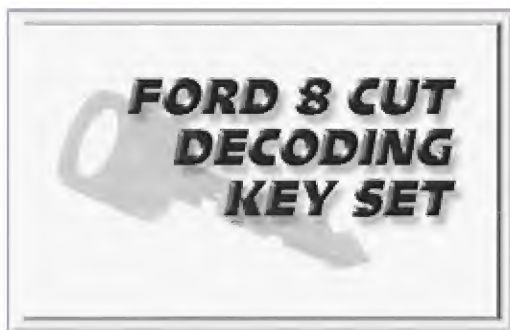
The brochure includes full color photographs and complete dimensions, allowing consumers to select the hardware that best enhances interior cabinetry with complete confidence.

To obtain a complimentary copy of the new cabinet hardware brochure, or for more information about Omnia Industries, Inc. and all their other products, please call 973-239-7272 or circle 350 on Rapid Reply.

Richardson Electronics 1999/2000 Product Guide

Richardson Electronics Security Systems Division released their new 1999/2000 Product Guide this month. This new Product Guide features specifications on over 1300 products for CCTV, Access Control, Burglary, Fire & Sound applications. The catalog is formatted with easy-to-read product specifications, full-color product photos

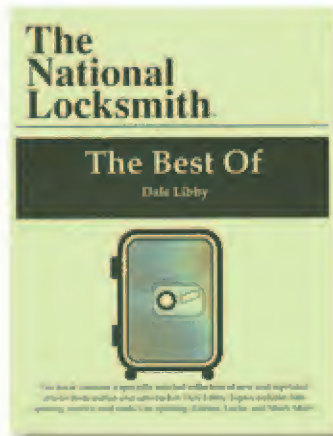
Ford 8 Cut Decoding Key Set



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#FD - 8

The Best of Dale Libby



This book includes the best articles written by Dale Libby over the course of many years, going back well over ten years! Now you can have this terrific collection of safe opening articles, automotive articles, and more.

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#DALE

and clearly defined sections to make choosing products for your security and sound applications easier than ever.

Designed with the user in mind, Richardson has worked closely with its manufacturers to create a tool that helps dealers find the information they need, readily and quickly.

To obtain your copy, please call 1-800-722-CCTV (2288) to reach the nearest Richardson location. Requests can also be placed via Richardson's Internet home page at <http://www.cctvnet.com> or e-mail at cctv@rell.com, or circle 351 on Rapid Reply.

Security Lock Issues New 64 Page Catalog

The complete line of Simplex mechanical pushbutton access control products is described in a new booklet offered by Security Lock Distributors.

Included is specific information on all heavy duty primary locksets, exit device and switch controls, narrow stile door locks, primary locksets, auxiliary and cabinet locks as well as all accessories and options.

The booklet contains detailed exploded views showing positioning of



all components, photos of same, plus basic installation information, dimensions, electrical ratings, finishes, functions and styles. The unique booklet is free.

For more information please contact Security Lock Distributors at:

Phone: 800-847-5625, Fax: 800-878-6400; E-mail: seclock@ix.netcom.com; Web: <http://www.seclock.com>, circle 352 on Rapid Reply.

Zero Catalog Marks 75th Anniversary

The 1999 catalog for Zero International's complete line of door and window gasketing, thresholds, saddles and high-performance continuous hinges celebrates 75 years of design and manufacturing innovation.

The 36-page catalog provides specification guidance and full-size schematics for hundreds of components and integrated systems for blocking flames, smoke, air, light and sound. All are engineered for quality, performance and durability. It highlights recent innovations in Zero's intumescent technology and systems that can help both manufacturers and specifiers comply with the positive pressure requirements of ICBO's UBC 7-2 12997 Fire Door Standard. In addition, Zero is now offering a license agreement for use of proprietary test procedures that can help door and hardware manufacturers bring UBC 97-compliant products to market fast—and without the expense of testing.

For a catalog call: 800-635-5335; Fax: 800-851-0000 or 718-292-2243; E-mail: Zero@zerointernational.com, circle 353 on Rapid Reply. **INL**



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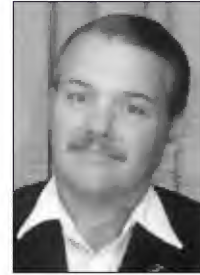
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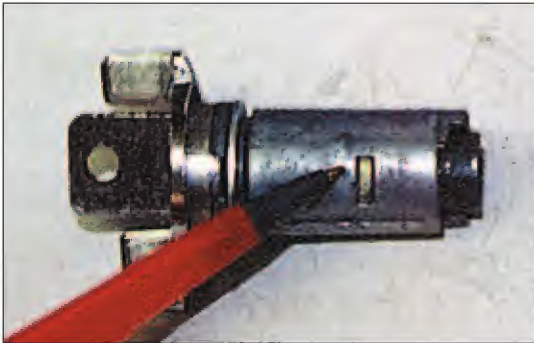
#ASA - 2000

BEGINNER'S CORNER

Making Keys for General Motor Locks

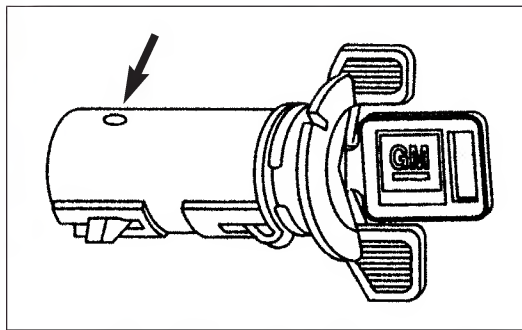


by
**Jim
Langston**



1. A standard 6-cut single-bitted ignition lock.

This month we will cover how to make keys for the standard single-bitted 6-cut General Motors ignition locks (Strattec number 609530 or similar) when codes are not available. I will show how to take the lock apart and explain how to cut a key.



A. There is a hole in the side of the lock, which allows access to the plug retainer.

In *photograph 1*, you can see a GM ignition lock, which shows the retainer that secures the plug to the housing on the side of the lock.

In *illustration A*, notice that there is a hole in the side of the



2. To remove the retainer you must use a small punch.



3. The half-moon retainer will slip out.

lock, which allows access to the plug retainer. To remove the retainer you must put a small punch in the hole and tap on it hard. (See *photograph 2*.) By doing so, the half-moon retainer will slip out as seen in *photograph 3*, being held by tweezers.

Once the retainer is out pry the cam off the end of the plug and the plug can then be removed from the lock housing, as seen in *photograph 4*. With the core removed you then can proceed to making a key.

To decode this lock, it must first be picked so the sidebar is retracted and the wafers locked into position. An easy way to pick this lock is to apply finger pressure to the sidebar and then rake the tumblers with your favorite pick. When the sidebar is pushed in, hold it in with your finger and by using a very high tech tool (a clothespin) fasten the clothespin on the sidebar so it remains retracted and the tumblers are locked in the opening positions. (See *photograph 5*.) By doing so allows the lock to be decoded by reading the depths of the wafers to make a working key.

In *photograph 6*, is a GM decoding tool available from A-1 Manufacturing used to determine the wafer depths. There are several GM decoding tools available, all of which will perform satisfactorily.

The tool consists of a probe and depth gauge. The tools probe is inserted in a gap between the spring cover and wafer chamber. Position the probe on top of the first wafer and depress the bullet shaped casing until it contacts the top of the plug. The probe is spring loaded causing the depth gauge to project from the top. (See *photograph 7*).

There are five possible depths (1-5) available. Also of importance is the fact that the sum of the six cuts on a factory original key always total an even number, with the exception of the 8000-9499 series. This is true for all GM codes since 1967. This bit of information is very useful when decoding a lock. If after decoding the lock the total sum of the six decoded wafers equals an odd



4. Remove the core from the lock.



5. Fasten the clothespin on the sidebar so it remains retracted.



6. A GM decoding tool available from A-1 Manufacturing.





7. The probe is spring loaded causing the depth gauge to project from the top.

B. A progression chart to determine the first two cuts.

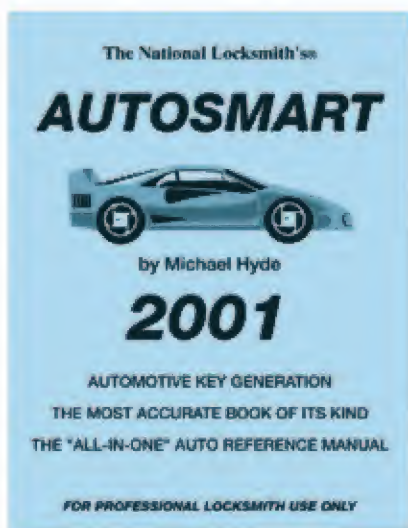
FIRST KNOWN CUT	EVEN			ODD	
1	11	31	22	12	21
	13	42		23	32
	33			43	
	53				
2	11	31	22	12	21
	13	42	33	23	32
	24	53		34	43
	44			54	
3	11	31	22	12	21
	13	42	33	23	32
	24	53	44	34	43
	35			45	54
4	13	22	42	12	32
	24	33	53	23	43
	35	44		34	54
	55			45	
5	13	33	44	23	43
	24	53		34	54
	35			45	
	55				

number, you know either one of the wafers was read incorrectly or your addition is incorrect.

The number closest to the top of the wafer reader will indicate the depth of that wafer. Once you decode each wafer and write each one down, you can proceed in cutting a key. If a wafer indicates a reading between two numbers (3-1/2) for example, decode it as three first and progress from there.

Once you have a key made, reassemble the lock by inserting the plug in the housing and

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staking the retainer with a small punch.

Now that you have an ignition key for the vehicle, how do you go about producing a door or trunk key? One way is to remove a door or trunk lock and decode it, but this is by far not the easiest way. To remove a door lock requires removing the door panel, lock linkage and clips to remove the door lock. To remove a trunk lock requires drilling rivets to remove. That sounds like work to me.

An easier way to produce a door lock is to first decode the glove box lock if one is present. On many older GM trucks, you will be out of luck because they do not feature a locking glove box.

If a glove box lock is present, either impression a key or pick the lock open, depress the retainer in the fifth tumbler position and remove the plug to decode. The glove box lock contains four of the six wafer tumblers in positions 3-6. Numbers are stamped on the tumblers making it easy to

decode. If depth numbers are not present, insert a blank key and determine the depths.

Now that the cuts in positions 3-6 have been determined, we now need to determine the tumbler depths in positions 1 and 2 to operate the door and trunk lock.

The easiest way to determine the cuts in the first two positions is by following the progression chart in *illustration B*.

Add the determined glove box depths to see if they total odd or even. (In this case it could be either or.)

By utilizing the depth of the third position wafer tumbler, or first known depth closest to the shoulder of the blank, use the chart in *illustration B* and use either the odd or even bittings in the column of the first known cut.

For example, if the third cut is a 2 and to total of the four glove box tumblers is even, you would use the number 2 "Even" chart to progress a key. This would require you to cut 11-13-24-44 progressively in the first two

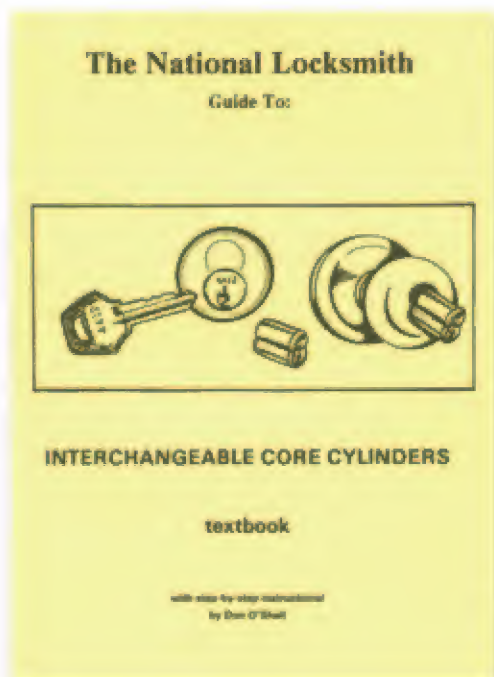
positions, each time trying the key in a door lock until it turns. If the first key does not work go to a second key and cut 31-42-53, in the first two positions, remembering to also cut the four known cuts in position 3-6. If the key still doesn't work go to a third key blank and cut 22-32. A maximum of three keys may be used until the correct combination is determined.

Once familiar with this procedure, it is very quick and easy to produce a door or trunk lock key without disassembling anything other than the glove box lock.

If you have anything you would like to see covered in this column drop us a line at The National Locksmith and we will be glad to cover it.

Point to Ponder: No matter what happens, there's always somebody who knew it would.

TNL



Interchangeable Core Cylinders

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- Best/Falcon/Arrow/Eagle/(A2)
- Best A3
- Best A4
- Corbin X Removable Core
- Corbin Z Removable Core
- Russwin Removable Core
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- Sargent Removable Core
- Schlage, Yale, Lockwood
- Medeco Removable Core

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PRODUCT SHOWCASE

DHI - October 1999

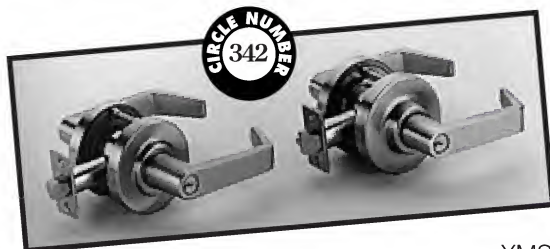
Circle the numbers on the **RAPID REPLY CARD** and send it in.

Southern Steel 10500 Institutional Mortise Lock

One of the newest members of the Southern Steel security arsenal is the 10500 Institutional Mortise Lock for swinging doors. This versatile series of locks has many different applications, such as for entrance, storeroom, toilet, bedroom, bath, closet or classroom door locks. The locks are designed for minimum to maximum security facilities, and are available in a variety of styles utilizing several deadbolt/latchbolt combinations.



Marks Survivor Series



Marks USA introduces two new key-in-lever Survivor Series, Grade 2 locksets featuring the "Clutch" which are available for both conventional and IC cores. When locked, the "Clutch" disengages the outside lever allowing it to turn freely. These locksets survive where rigid levers fail. Each Survivor Series rose contains its own proprietary high-strength lever support spring, which eliminates lever droop. Marks USA locksets feature a lifetime mechanical warranty. All standard functions are available in both the "American" with angular return and the "Crescent" with a smooth rounded lever. Survivor locks are UL listed for 3-hour fire rating and satisfy all ADA requirements.

Securitron's New XM-1

Securitron Magnalock Corp., has introduced the first package designed to meet national code requirement regarding the use of motion sensors for electric lock release.

The XM-1 package combines



Securitron's XMS-Exit Motion Sensor and your choice of one of its EEB series emergency exit buttons. When installed, the XMS will sense a person approaching within five feet of the door automatically releasing the electromagnetic lock. As a backup, EEB series emergency release buttons provide a fixed 30-second release of the lock when pressed.

The attractively designed XMS is easy to install and to adjust with the sensing field easily directed to only unlock when it is supposed to. The dual Form "C" relays allow the

XMS to release the electric lock after a 50 millisecond delay to prevent false alarms from a too quick lock release.

Secura Key High Performance Proximity Reader

The Radio Key® RK-WS is the newest Reader in the Radio Key® family of superior proximity products, which is designed to integrate into any system requiring a Wiegand output. The reader will read Secura Key proximity cards or key tags and transmit the data in virtually any Wiegand Format up to 40 bits."



Secura Key's exclusive SYNASCAN™ technology * assures maximum performance in any environment. The reader measures less than 4 1/2" x 3 1/4" and has read distances up to 8".

Seco-Larm ENFORCER

With two models to choose from, ENFORCER Electromagnetic Locks E-941SA-600 (holding



force 600lbs.) and E-941SA-1200 (holding force 1200lbs.) are perfect for your access control needs.

Both models have anodized aluminum housing, selectable voltage input (12VDC), MOV surge protection, and no residual magnetism. The handsome design, detachable faceplate, and adjustable mounting bracket make installation of the ENFORCER Electromagnetic Lock simple. Included with each unit is complete mounting hardware and instructions.



Von Duprin's New Recessed Exit Device

A new series of recessed exit devices from Von Duprin combines architecturally sound aesthetics with superior functionality. The new design is available in an array of finishes, with a broad range of features and options that includes electric latch retraction and two-point or single-point LBR latching. The recessed configuration is well suited to applications that must meet clear-width requirements for cross-corridor doors.

Corbin Russwin ML 2000-New Quick Reversible Mortise Lock

Corbin Russwin is proud to announce the introduction of its new patent pending quick reversible mortise lock, the ML2000. The handing of this lock can be changed without removing the lockcase cover. The simple procedure takes less than one minute to accomplish.



The security of this lock is unparalleled. As a preventative measure against possible vandalism, the lockset must be removed from the door to re-hand. This feature enables a facility such as a school to have a flexible mortise installation base that cannot be compromised by the re-handing of an installed lock. The ML2000 has also been tested rigorously and exceeds ANSI standards. It is the only mortise lock on the market that does not require special trim to meet both the Security and Operational ANSI Grade 1 accreditation.

SDC Introduces HiTower® Cylindrical Locks



CIRCLE NUMBER
348

The new SDC ZA7200 HiTower® is an electrically operated,

ANSI/BHMA Grade 1, extra heavy-duty cylindrical lock that combines life safety and security for access control applications. Features include a vandal resistant pressure release lever, lever power return spring, choice of lever handle styles and low current draw. The SDC lock may be ordered with another manufacturer's keyway or prepared to accept another manufacturer's standard key cylinder or interchangeable core. A REX output is optional for access control applications. SDC ZA7200 HiTower® locks exceed 800,000-cycle test, are ADA compliant and UL listed for use with fire doors.

Weiser Lock's Powerbolt 3000® Home Access System

For the first time, homeowners will be able to use one small, hand-held remote control to perform three separate home security functions. That capability has arrived with the introduction of the Weiser Lock® Powerbolt 3000® Home Access System with radio frequency remote control.

Small enough to carry in a pocket or a purse, the new version of the



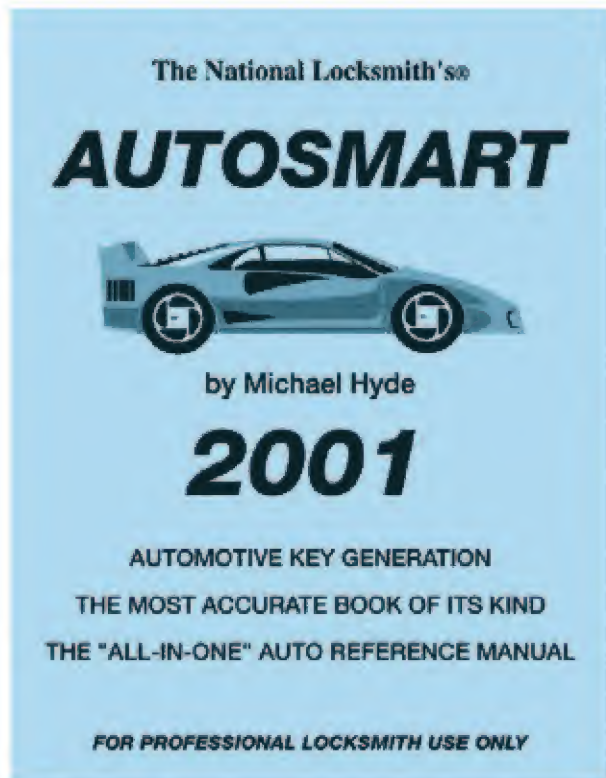
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349

popular Powerbolt is the world's first remote control that connects the homeowner's home door locks, garage door opener and interior lighting systems. Powerbolt represents a significant advance in convenience for the lifestyle of today's homeowner.

Like all brass door hardware from Weiser Lock, Powerbolt comes in the patented Brilliance® Lifetime Anti-Tarnish Finish, guaranteed never to tarnish, discolor or corrode.

Dorma Group Electronic Access Control Hardware

The Dorma Group has introduced a line of electronic access control

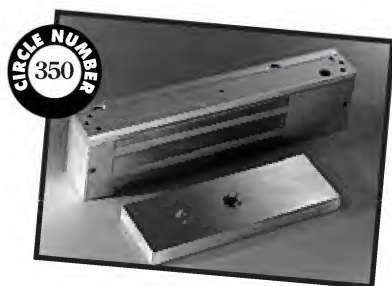


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hardware to complement the company's full range of door controls and exit devices. The line features electromagnetic locks, shear locks, delayed egress locks, power supplies, electric strikes, keypads, switches and other accessories.

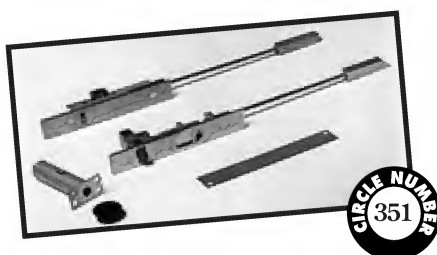
Included in the new line are single- and double-unit electromagnetic locks and specialized electromagnetic locks designed for applications such as gates, cabinets and sliding doors. They feature holding forces ranging from 300 to 1650 lbs.

Also available are shear locks, either surface mounted, concealed or semi-concealed, and one of the most technically advanced delayed egress locks available which complies with NFPA 101 life safety requirements as

well as BOCA and MEA special provisions.

Programmable digital keypads include on-board microprocessors and nonvolatile memory. Desktop and rack-mount consoles can control one or more doors in a system.

Glynn-Johnson Flush Bolt Retrofit Kits For Fire Doors



Glynn-Johnson has introduced two new flush bolt replacement kits designed for retrofitting existing flush bolt applications on hollow metal fire doors where a top bolt only configuration is desired. The new FB33 is an automatic flush bolt, while the FB33 is a constant latching flush bolt. Both are UL listed to maintain the fire rating of an opening.

The FB33 consists of a top automatic flush bolt, an auxiliary fire latch, and a filler plate. The filler plate is provided to cover the existing cutout when the bottom is removed.

The FB33 consists of a top constant latching flush bolt, an auxiliary fire latch, and a filler plate to cover the existing cutout when the bottom is removed.

Both products are available in US3, US4, US10, US10B, US26, US26D, US32, and US32D finishes. The filler plate is finished with a protective clear zinc coating for corrosion resistance.

Locknetics Security Engineering CM Series

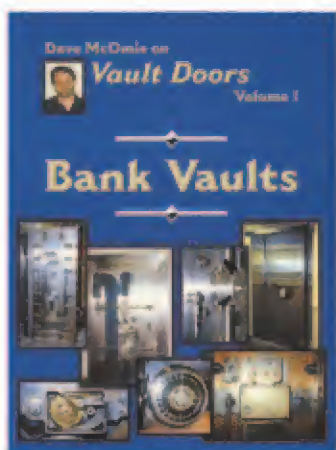


Locknetics Security Engineering has introduced a new standard-alone, electromechanical lockset with an integral, HID-based Proximity Reader.

Locknetics' Proximity Reader Locks are part of the CM Series of computer-managed, programmable locking systems. The Proximity Reader Locks are available in cylindrical, mortise, or unit-style locksets. Mortise locks include a 3/4" deadbolt or the patented, 1" Autobolt®, which automatically projects when the door is closed.

Electronic access control technologies can include HID-based proximity cards or fobs, TouchEntry® electronic datakeys, and/or a keypad code. All Locknetics Proximity Reader Locks are fully programmable for up to 500 users, with an optional 500-event audit trail. An array of available time-based functions simplifies facility management. **INL**

Dave McOmie on Vault Doors Vol. 1 & 2



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#VD - 1, VD - 2

One Coreway Driv
Pion



by Joey Kingma

KEY CONTROL

Many years ago, before I became involved with the security industry, my home was burglarized. I actually had the pleasure of “meeting” the burglar at the back door (he was on the way out)! That was my first introduction to the risk resulting from inadequate physical security. The advice I was given at the time was to purchase a deadbolt since the burglars simply jimmied my doorframe. So I did!

A few years later while building a new home, I learned about Key Control the same way. I couldn’t figure out how workers were getting in the house without being let in by either my general contractor or myself. Then I realized that my sub-contractors had made copies of my keys.

I’ve since become involved in the security industry, and have gained a unique perspective about access control systems and the way different manufacturers represent security and “Key Control”

What is Key Control?

In focus groups, when commercial, residential or institutional customers are asked about key control, they give answers ranging from the expected to: “It’s when I lock my keys in my safe” to “I don’t have any idea”. Ultimately, key control offers your customer the security of knowing exactly who has keys to their facility or residence at any given time. It means keys are not readily available, cannot be copied without proper authorization and that keys aren’t borrowed without a proper record trail.

**D
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14** Today, many manufacturers and distributors have or claim to have products with “Key Control.” Some are more secure than others, but how do you assess which restricted/patented product is right for your business, then educate your customers on its merits. First, you should understand some of the potential pitfalls of some of the restricted or patented products available so that you can make good decisions for your company, then accurately describe the options to your customers.

Second, you should take the time to understand your customers’ true needs and educate them on all of the options available (starting with the most secure).

Key Control is not an entity unto itself. It is comprised of many elements of which the absence of any one can compromise the integrity of the system you offer. It is complex and requires discipline on the part of the manufacturer, wholesalers and retailers to uphold. Obviously, it’s not as simple as stamping keys.

In a recent tragedy, students allegedly gained access to a school after hours by having a key copied marked “Do Not Duplicate.” It’s a shame to have to use such a tragic event to illustrate the inadequacy of keys marked “Do Not Duplicate.” “Do Not Duplicate” is nothing more than a polite request

to the holder of the key to honor the integrity of the access control system. A polite request is appropriate for many things, but not for protecting property and personal safety.

Key control, at its most fundamental level, requires two elements: restricted distribution and some method of deterring others from manufacturing key blanks. Restricted key blanks have been around for ages. Keys are restricted through distribution channels, user/market types, etc. A restricted key section is not protected against unauthorized manufacturing of key blanks. Often, the problem emerges when the installed base of the restricted section becomes large and the potential sales tempt a key blank manufacturer. Many have used complex keys to thwart such efforts, many requiring specialized key cutting equipment. Ultimately, patent protection is required to give legal remedy to the original manufacturer of the keys.

Is a patent all that is required to protect your customers from unauthorized duplication of their keys? Most emphatically NO! A patented product is only the foundation of protection. I believe that there are other factors involved in leveraging and maintaining what a patent protects initially.

There are 7 “Pillars” or cornerstones to a strong key controlled security solution:

- Strong Utility Patent
- Strong Legal Usage Contracts
- Controlled Distribution
 - of Key Blanks
- Regular and Systematic Customer Key Record
- Audits
- Reliable Key Holder Verification System (Cards or Signature, etc.)
- Custom Coined Key Blanks
- Proven History of Legal Enforcement of



Patents and Contracts

The absence of any one of these “Pillars” weakens the integrity of the system. Let’s consider what’s involved in each, and what some of the common misconceptions are.

Strong Utility Patent

There are two types of patents available to protect key sections: Design and Utility. A design patent provides protection for new and original ornamental designs for articles of manufacture.

Several years ago, Ilco Unican Corporation, with the assistance of others in the industry, challenged Best Lock Company for its design and utility patents on a particular keyway. The design patent was ruled invalid as the court explained that a design patent is “not valid if it is functional or if the function dictates the design” and “to qualify for protection a design must present an aesthetically pleasing

appearance that is not dictated by function.” Best Corp. argued that the keyway had aesthetic values, but the courts decided that any aesthetic value was a result of functional elements of the keyway.

Perhaps the most recognizable use of a design patent is by Schlage on the design of its key bow. This patent did not keep after-market blanks from appearing, although they had a slightly different shape to the bow. It is obvious that systems protected by design patents are not ideal candidates for strong restricted key control systems.

The second type of patent, a Utility patent, is issued to protect a concept that is not obvious and is not prior art. The strength of a utility patent comes from designs that are clearly new and unique. Referring back to the Best/Ilco case, it was ruled that the Best Company utility patent, used to protect a bow shoulder that engaged in a groove in the face of the plug to absorb the torque of turning the key, was anticipated by prior art. It was even ruled that a previous patent used by Best claimed the same feature.

Strong Legal Usage Contracts

When a restricted, patent protected product manufacturer decides (either directly or indirectly) to sell through a business entity, certain “rules of the game” need to be established. There are mixed emotions about some of the restricted key section contracts required by manufacturers, some even claim that they are counterproductive to efficient operations. Consider the following thought about restriction. If a violin string is laid on a table, it is free. It is free to lay there and can be contorted to any shape imaginable. But the violin string is not free to be what it was designed to do, make beautiful music. In order to make beautiful music, it must be stretched tight and confined to limit it’s movement to only minute vibrations. It is then “free” to make beautiful music.

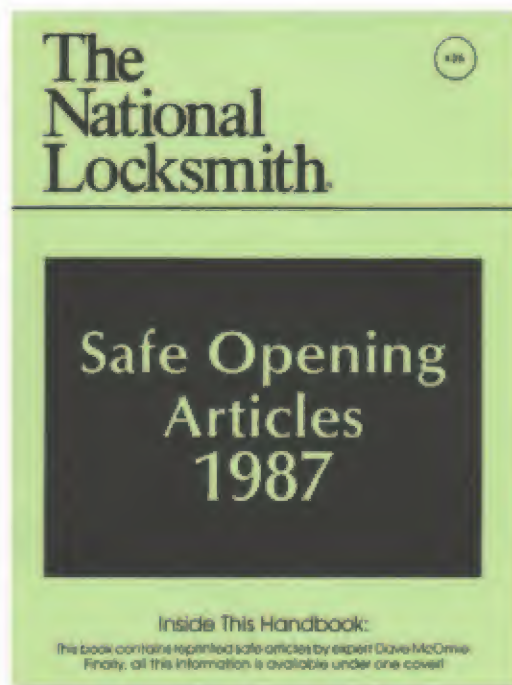
Restricted use and strong guidelines follow the same principle. The contract is part of what makes the product as secure as it is. It is a restricted product. Certainly you don’t consider yourself anything less than reputable business people, and would be able to live up to manufacturers expectations on a hand-shake, but you

are not who the contract is designed for. It is designed to protect you from others who may wish to compromise the integrity of your systems. Obviously, a strong usage agreement for restricted product must have legal “teeth.” You should insist that the product you carry has strong contracts, not only between you and your supplier, but also between you, the supplier and your end-users. They are there for your protection. After all, it is a system that you represent.

Controlled Distribution of Key Blanks

If you have a restricted product, it shouldn’t be available to everyone on the streets. Have you considered the steps your keyblanks pass through to get to you or your customers? With each set of hands on the blanks, the likelihood of stray blanks grows higher. Insist that your manufacturer or distributor be completely accountable to who handles your key blanks, and for end-user keyways, insist (and teach your customers to

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#SA - 1

insist) that they be drop-shipped directly to the customer.

Regular and Systematic Customer Key Record Audits

Even the most clever or failsafe system for validating authority to duplicate keys is useless if there is no system to verify that all are carrying out proper procedures and processes. A strong key control program must incorporate a method of auditing your key records and mis-cuts to ensure that the system is working correctly. As mentioned earlier, Your activities may not necessitate auditing, but do you really trust everyone to protect the integrity of the programs the way you do?

Is auditing enough? No!

If the manufacturer/distributor of your key control product doesn't perform key record audits as required, then act swiftly and decisively on any infractions to the process, you may be offering a system that doesn't have widespread integrity. Remember that your business integrity is a direct reflection of the products and systems you offer.

Reliable Key Holder Verification System

Key holder verification has gotten so commonplace that we may have forgotten its true intent: To make sure that duplicate keys are provided to the person with the proper authority to duplicate the keys. Many systems available today have cards that must be presented at the time request for additional keys. These work as well as the manufacturer/distributor enforces their usage. Some card controlled products on the market today actually state on the back of the card: "X Company is not responsible for unauthorized duplication of keys on this system". If the manufacturer isn't willing to take responsibility for the system, who will or who should?

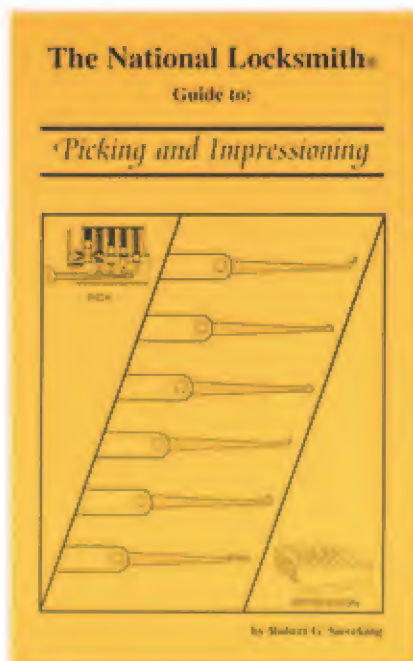
Given the number of unethical businesses in the world, don't offer a system to your customers without understanding the level of support provided by the manufacturer/distributor. If the manufacturer won't claim responsibility, a "polite request" has been made to you to uphold the program rules (hopefully you agree with the lack of security provided by

polite requests). Again, processes that allow audits as needed are critical to the reliability and integrity of the key holder verification process.

Custom Coined Key Blanks

Years ago, a dealer claimed that cut keys were showing up in a system where the coined markings had been ground off the key. He was concerned that they were either counterfeit or were being supplied incorrectly by another dealer. A key was sent to a special laboratory, and because the keys were custom-coined, an acid relief process revealed the likeness of the coining (it discolours the areas that withstood the pressure of coining). The perpetrator was informed of the infraction, legal action was taken and the integrity of the system was maintained for the dealer.

Without some permanent marking on the keys, there is no reliable way to track the origin of the keys. Coining makes spurious keys easily identifiable within a facility as well as provides marketing benefit since they constantly remind the key-holder of the keying/security system provider.



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#PI

Proven History of Legal Enforcement of Patents and Contracts

Patents do occasionally get challenged. Some turn out like the Best/Ilco case, but many do not. In either case, if the manufacturer doesn't believe in their patents strongly enough to vigorously defend any attempt to violate them, don't touch the product! Obviously, think twice if the patent is challenged and the case is lost! Ask your product representative how many times they have successfully defended their patents or challenged misuse of their products. For the products you represent, insist on constant and aggressive protection from any misuse of products, programs or threats to applicable patents.

Key control is available in many forms and some are more effective than others. Each manufacturer has different spins on programs and program benefits. Hopefully this article will help you understand some of the fundamental elements of a strong key control product. Consider the advice given about not using keys stamped with "Do Not Duplicate" as a form of key control. A common key stamped in this fashion does not represent any form of reliable key control.

If you don't fully understand your customers' needs and they purchase a system from you, thinking they have a controlled system, but are able to have keys duplicated without proper authorization, do you think they will come back to you for your fine work? Will they recommend you to their friends or associates? Your reputation is an extension of the integrity of the system you sell.

You have to decide which key control product represents the ideals you want to offer to your customers. If you represent security with integrity, choose and recommend a key control product that is supported by a manufacturer with demonstrated integrity in their actions. One method of helping you make your own decisions about key control systems and the ability/willingness of the manufacturer to enforce them is to ask some simple questions:

- Does a strong utility patent protect your product, and what measures are in place to enforce the patents?
- What type of contracts do you require of your representatives and end-users?

- How do you control the distribution of your key blanks?
- When is the last time you performed a comprehensive audit of your customers' key records?
- What type of system do you provide so that I can confidently identify a keyholder as the person with the authority to have duplicate keys made, and how do you maintain the integrity of the system?
- Do you provide custom coined key blanks for all of your programs?
- When is the last time you took legal action against the mis-use of your products or programs and what was the outcome?

- What is the size and history of the company (many times this can be a good indication of the ability to enforce policies).
- Are different levels of control available to suit the individual needs of end-users

Begin with this list of questions and add more of your own. Be proactive in seeking out the best key control product to offer to your customers. Remember that your company reputation will become a direct extension of the integrity of the products and services offered. **TRL**

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#MSO - 1

RIM DEVICE WITH ELECTRIC LATCH RETRACTION

by Patrick McKinley



1. Adams Rite Model 8800, which employs a hardened steel starwheel and interlocker.



3. A solid grip is achieved between door and frame that's pretty tough to beat.

Can an exit device installation be so simple that I, a person with a limited technical background, would be able to comprehend the process and relate it to you, a professional in the industry? When the hardware in focus is an Adams Rite Rim Device with an Electric Latch Retraction option, even a locksmith neophyte like myself can follow along.

There are many device options on the market for electrically controlling a door. But are they as easy to install? And how do their performance benefits compare?

One of those popular options is the electric strike, which is no doubt perfect for many applications. Their jaw strength is tough enough to ensure no one is going to pull the door open, they've got a low current draw and can be used when door monitoring is a requirement. So how does a Rim Device top that? By providing even better security.

While an electric strike may have a one ton jaw strength, they can be subject to prying. The Rim Device we'll be discussing is an



2. The starwheel bolt and interlocker both penetrate the strike mounted to the doorframe.

Adams Rite Model 8800, which employs a hardened steel starwheel and interlocker to provide excellent security against door spreading attacks. (See photograph 1.) The starwheel bolt and interlocker both penetrate the strike mounted to the doorframe. (See photograph 2.) This provided a solid grip between door and frame that's pretty tough to beat. (See photograph 3.)

What about the other popular option: electromagnetic locks? These versatile devices can fit just about anywhere, they have no moving parts to wear out and their holding force ranges from "you ain't getting past this baby" to "you ain't never getting past this baby." Not with assured power anyway. That fail-safe element is why electromagnetic locks may not be the best choice for all security

applications, unless you take on the extra cost of a battery back-up system.

Unlike the alternatives, Adams Rite Rim Devices are fail-secure, requiring no power system to maintain security. The mechanical override allows the device to be operable from the inside by depressing the pushbar, regardless of the electrical condition. The advantages don't stop there. The Rim Device meets all handicap and ADA guidelines, has low power consumption and uses a simple and inexpensive transformer/rectifier electrical supply. The devices draw either 1/2 ampere (24VDC) or 1 ampere (12VDC), not 4-16 amperes like other devices.

Installing a Rim device has advantages over electric strikes as well. There's no mortising of the door for the latch or frame and you're not restricted by jamb depth, which can preclude the use of electric strikes due to space constraints. Making installation even easier is the fact that the hardware is surface mounted. Installation involves drilling seven holes (11 if an exterior cylinder is required). And thanks to the interlocking feature, there's no need for stabilizers on door pairs using a center mullion.

Of all the above advantages, security concerns were the main reason why a Rim Device was chosen for this particular installation, a small office complex.



4. The woman at the front desk is often left alone by co-workers who sometimes forget to lock the front door.



5. The first step is prepping the jamb for the wire transfer.



6. The jamb is cut to the size of the wire transfer case.

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#SUB - 1,2,3,4,5,6



7. The installed wire transfer.



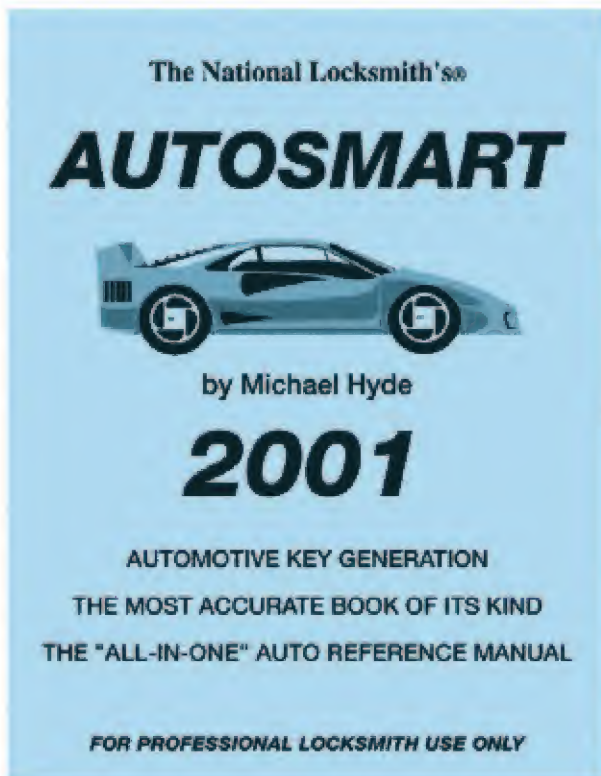
8. Drilling the cylinder hole.

The woman at the front desk is often left alone by co-workers who sometimes forget to lock the front door. (See photograph 4.)

After witnessing apparent drug deals in the parking lot and hoping the door was locked when strange looking people came to the door,



9. Inserting the cylinder.



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the company decided to upgrade from a standard deadlock and pull handle to a device that would be convenient, but would also give the bad guys a tough time.

Installation

This installation was not going to be typical (is there ever a "typical" installation?) We were going to replace the existing hardware, which meant we had to match existing holes.

The first step is prepping the jamb for the wire transfer in order to get electricity to the device. (See *photograph 5*.) Using a wire transfer makes the installation much cleaner and more resistant to vandalism than surface loops. After the jamb is cut to the size of the wire transfer case, (see *photograph 6*) we marked a spot on the stile (an U.S. Aluminum door) to drill for the connecting loop end. The completed installation can be seen in *photograph 7*.

Next we drilled for the strike, key cylinder and pushbar. (See *photograph 8*.) Adams Rite includes clear stick-on templates,



10. Used a level to mark the spot to drill and mount the other side of the pushbar.



11. The wires are simply fished through from the electrical source, down the jamb and through the wire transfer's conduit.

Ask Dave



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#AD - 1



13. The installed strike.

which makes the measuring and lining up process hassle and error free.

After inserting the cylinder (see photograph 9.) we mounted the pushbar to the holes drilled with the template, then used a level to mark the spot to drill and mount the other side of the pushbar. (See photograph 10.)

There is a common mistake that takes place at this point, but it's easy to avoid: Don't use screws other than the 5/8" one supplied to screw on the pushbar end caps.

If you use long screws that extend through the cap, you won't be able to depress the pushbar. Then you'll be depressed.

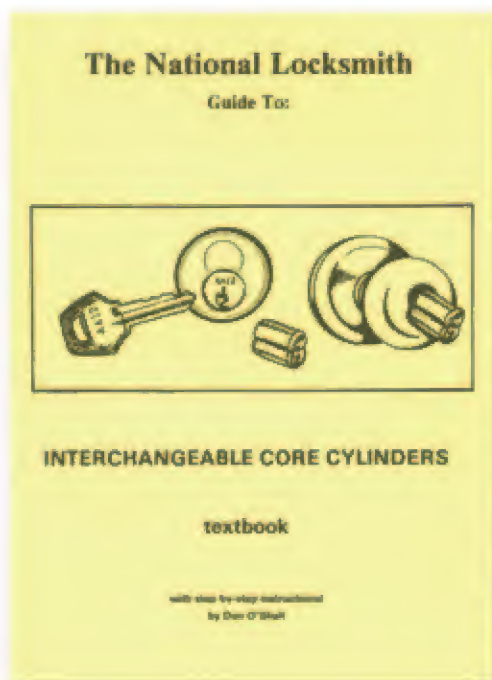
The next step moves us to the wire transfer. As you can see the wires are simply fished through from the electrical source, down the jamb and through the wire transfer's conduit.



12. We inserted Rivnuts (a B.F. Goodrich trademark) for fastening the strike.

(See photograph 11.)

For the mounting



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#ICB - 1



14. The completed installation.

of the strike, we removed the stop from the jamb, cut out a piece the size of the strike and then replaced the stop. Another clear stick-on template gave us the hole positions to drill, into which we inserted Rivnuts (a B.F. Goodrich trademark) for fastening the strike. (See *photograph 12*.) A Rivnut fastener is something every installer should use to make mounting the strike quicker and more solid. The Rim Device comes with its own tool to do the same job, but it takes a bit longer.

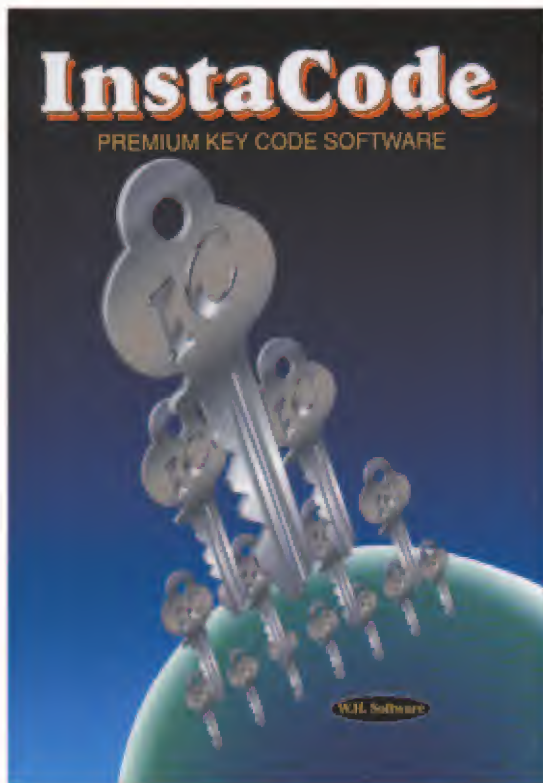
The installed strike can be seen in *photograph 13*.

So far we've cut the jambs, drilled the door, mounted the pushbar, wire transfer, cylinder and strike, all within about two hours. A pre-electrified test run (opening and closing the door a few times) yields a device that operates as smooth as silk. (See *photograph 14*.) All that remains now to make this installation complete is connecting the wires to the electrical source.

The Adams Rite Rim Device with the Electric Latch Retraction option works in applications where you might normally install an electric strike. Considering the added security, the improved accessibility and, as I learned firsthand, the ease of installation you may want to consider this option yourself.

For more information on Adams Rite products call: 800-872-3267; Fax: (562) 699-5094; Web: Adamsrite.com
Circle number 316 on Rapid Reply.

INL



#IC - 2001

InstaCode

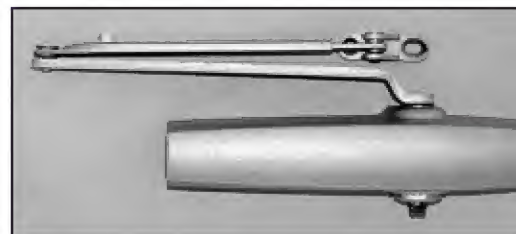
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LCN Quest™ Door Closer

A new closer recently introduced by LCN for aluminum store front doors and related applications can be installed in less time than any other closer available. The LCN 1371 Series Quest™ door closer was designed to eliminate the biggest causes of mistakes in installation while improving the appearance of the opening. (See photograph 1.)



1. The LCN 1371 Series Quest door closer.

The new design grew out of the manufacturer's efforts to identify the most pressing problems faced by a broad spectrum of people involved with closers. Based on their input, LCN began its new design with a clean sheet of paper, both in product features and related policies. The result is a dramatically different closer that is simpler and easier to install and looks unlike any competitive closer.

Easier Installation

Among the most important customer needs identified during the field research was a reduction in

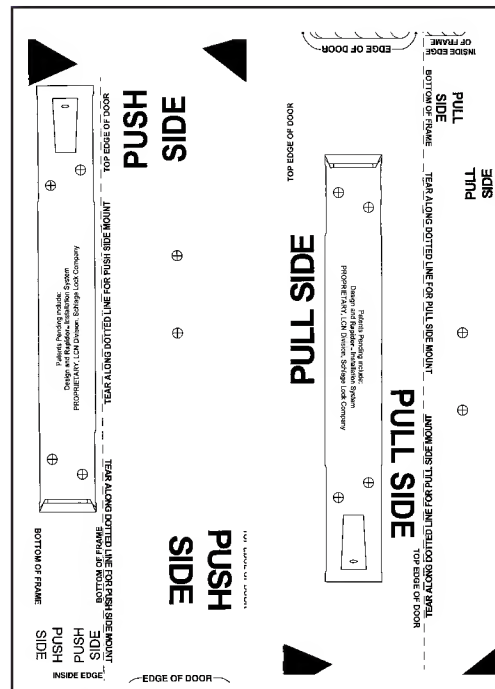
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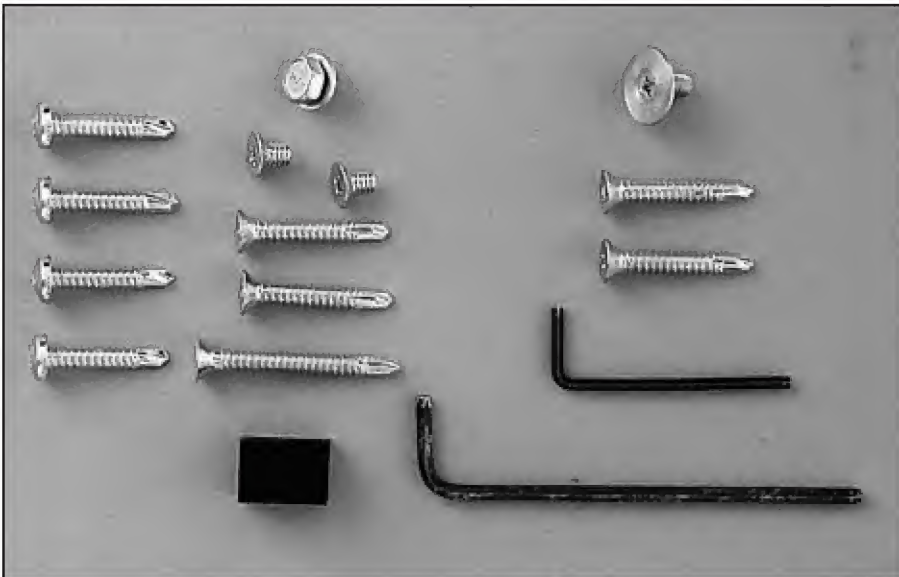
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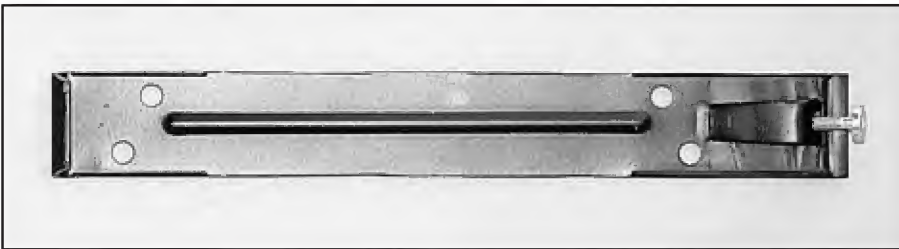
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A. Stick-on drill template.



2. Custom self-drilling, self-tapping screws.



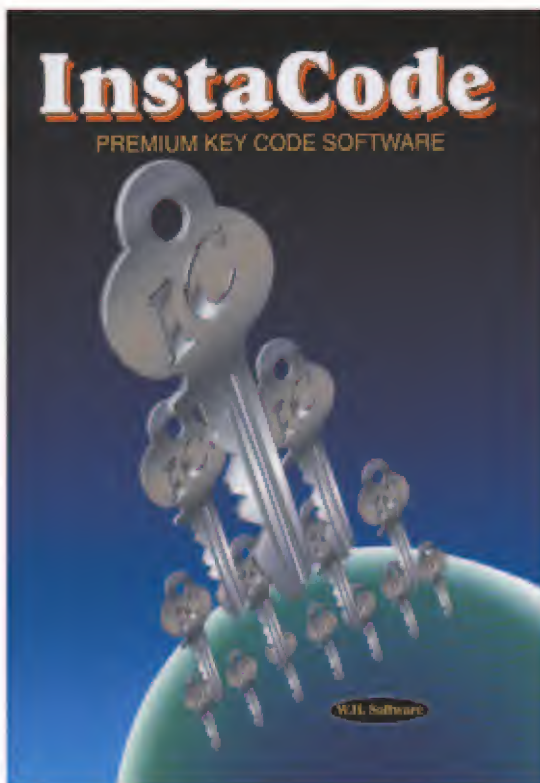
3. The unique mounting bracket used in the installation.

installation time. The new Quest closers can be installed in approximately half the time of competitive units, which also reduces installation costs dramatically. Fewer tools are needed as well.

A second major desire was for a closer that installs without mistakes and instills confidence that it is installed correctly. In response, the Quest line was designed so it can be easily installed by using one stick-on drill template. (See *illustration A.*) Custom self-drilling, self-tapping screws (see *photograph 2*) are used to install the unique mounting bracket used in the installation. (See *photograph 3.*)

A single mounting location covers all degrees of opening, eliminating the possibility of error, and the arm cannot be installed incorrectly. (See *photograph 4.*)

The new 1371 Series closer design is geared heavily toward aluminum storefront doors, which typically are used in exterior installations, but it is equally well suited for aluminum, hollow metal or wood doors and frames. It can be used with hinge or pivot-mounted doors and can be



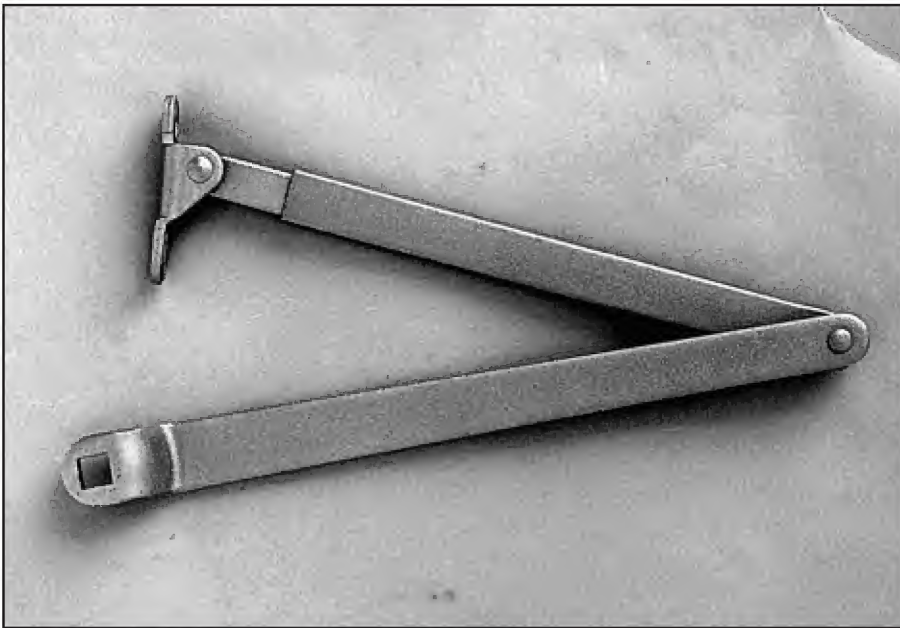
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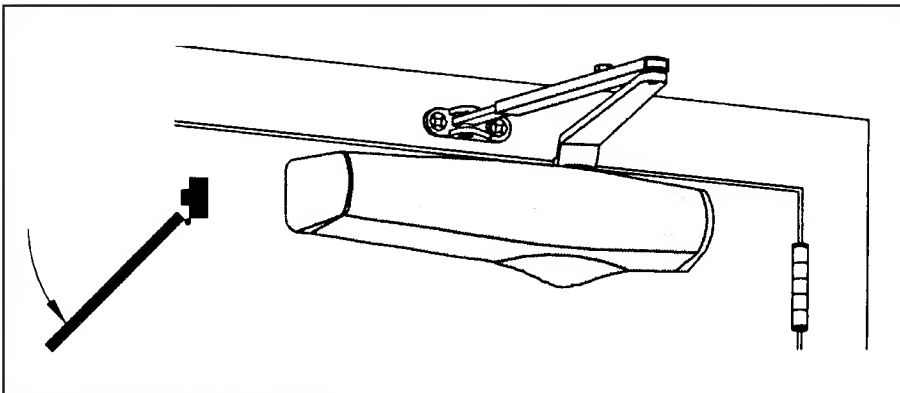
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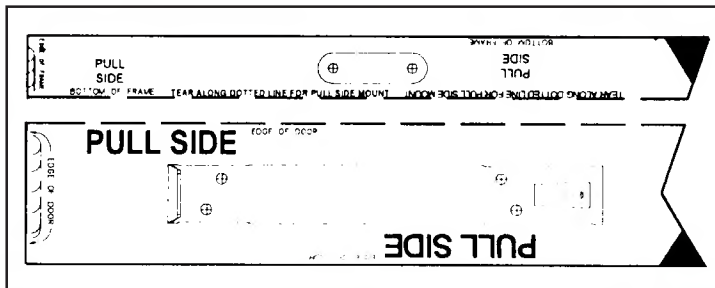


4. The arm cannot be installed incorrectly.



B. Pull Side Door Mounting.

C. 1. Locate Pull Side template and separate on dotted line.

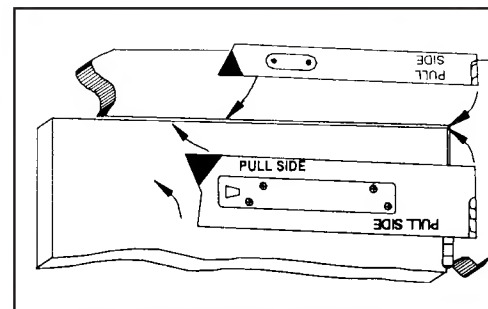


mounted on a 1-1/2" transom without adapter plates.

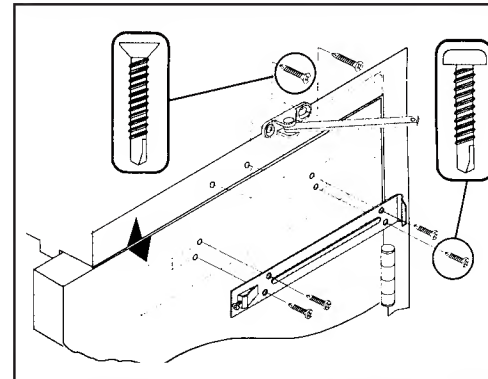
Installation instructions are supplied for Pull Side Door Mounting, Push Side Jamb Mounting, and Parallel Arm Mount on Push Side of Door.

Installation is easy and foolproof. To install a Pull Side Door Mounting, (see illustration B) follow illustration procedures C.1.-C.7.

The installation for the Push Side Jamb Mounting is almost identical to the Pull Side Door Mounting except the closer is mounted on the top jamb instead of the door and the closer arm



C. 2. Peel off template and align with hinge edge of door and frame and center punch holes.



C. 3. Attach mounting bracket, rod and shoe. Peel templates off of door and frame.

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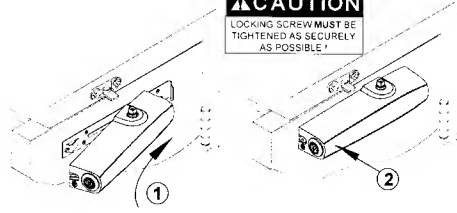


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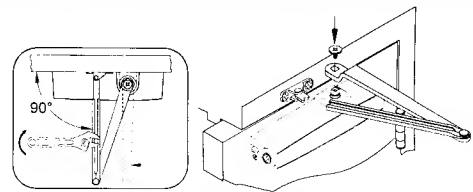
#ASA - 2000



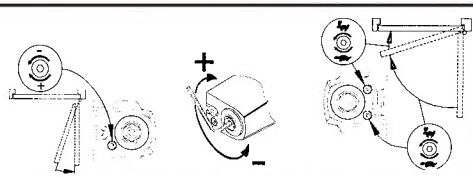
CAUTION
LOCKING SCREW MUST BE
TIGHTENED AS SECURELY
AS POSSIBLE.



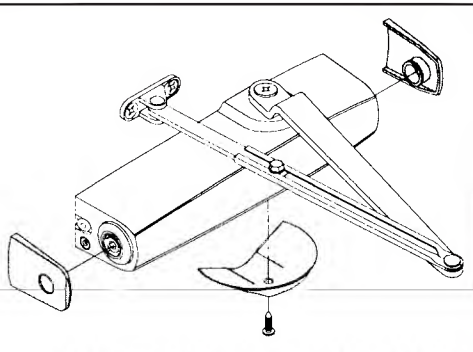
C.4. Attach closer to bracket as shown. Tighten locking screw securely. Locking screw must be tightened as securely as possible.



C.5. Attach arm to closer. Connect arm with rod and show. Preload arm to 90° (as shown).



C.6. If necessary, adjust spring power and door speeds.



C.7. Attach end cap and shaft cover.

shoe is mounted on the door instead of the top jamb. (See illustration D.)

To install a Parallel Arm Mounting on Push Side of Door, (see illustration E) follow illustration procedures F.1-F.9.

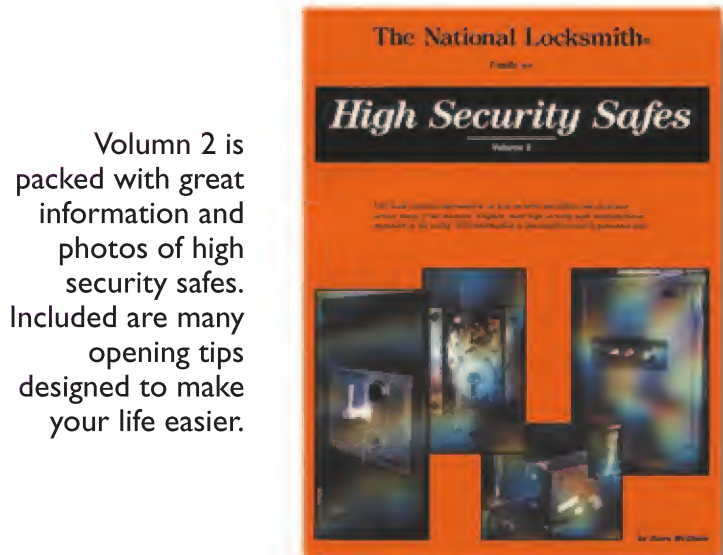
Improved Appearance

Although the basic closers used in these applications typically tend to be more utilitarian than aesthetic, architects and building owners were also looking for a design that would improve the appearance of the opening. The new product meets

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#HSS, HSS - 1

these requirements head-on, with a unique design that has clean simple lines. Mounting screws are completely concealed when closer endcaps are applied. (See photograph 5.)

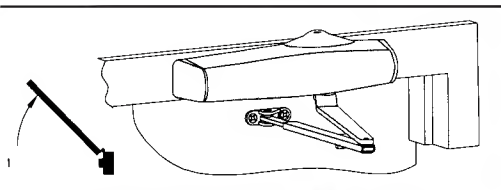
LCN powder coat finishes are used exclusively on the new closer line.

The powder coating produces a uniform, slightly textured mat finish that enhances the consistency of the product's appearance. A wide array of standard and custom finishes is available.

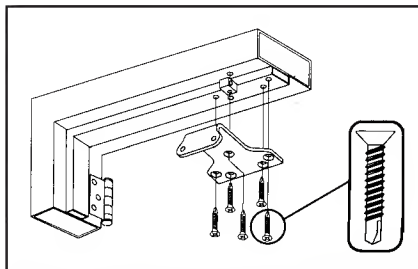
Single Size

The closer carries a 10-year warranty and features a cast iron cylinder with a bore diameter of 1.25 in. It includes improved gear teeth for smoother action, and all-temperature fluid is standard. A delayed action cylinder and hold-open arm options are available.

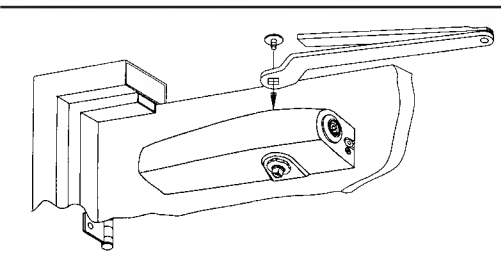
The closer design accommodates adjustments from ANSI sizes 1-5, and a single templated location allows 180 degrees of opening. By adopting a single non-sized unit instead of separate products for sizes 1-5, LCN has been able to reduce distributor inventory requirements by at least 50 percent and by as much as 66 percent for those who keep sized closers in stock. This also virtually eliminates the biggest cause of selection and delivery errors.



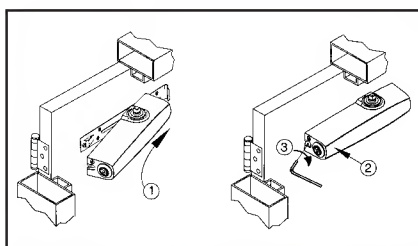
D. Push Side Jamb Mounting.



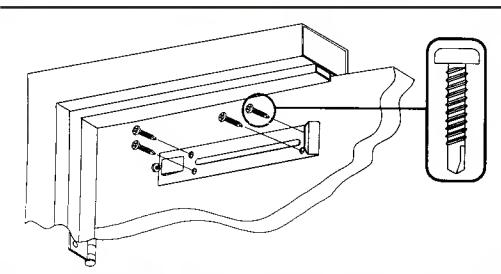
F.2. Attach shoe to stop.



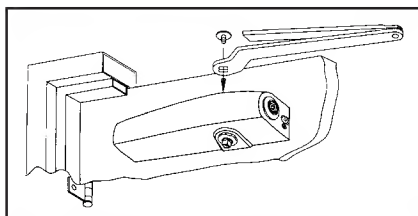
E. Parallel Arm Mounting on Push Side of Door.



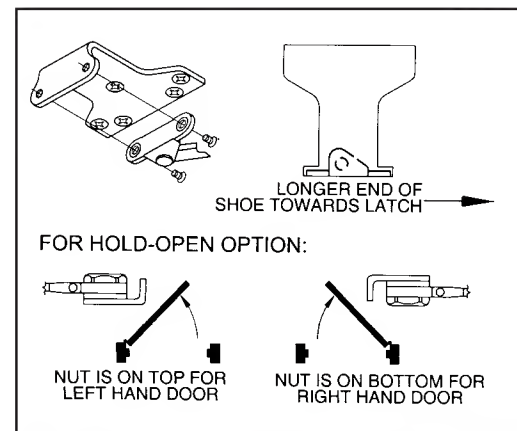
F.3. Attach closer to bracket then tighten set screw securely.



F.1. Mount bracket on door as shown.



F.4. Attach arm to closer as shown. The arm will point to the latch side of door.



F.5. Attach rod and shoe to shoe bracket.

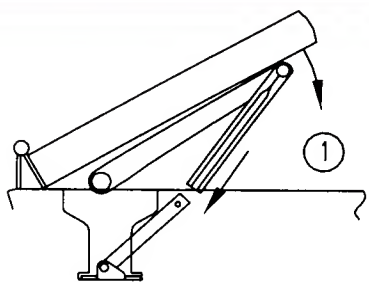
IC Cores: Small Format

Everything you ever need to know about how to sell, service, install and troubleshoot interchangeable cores!

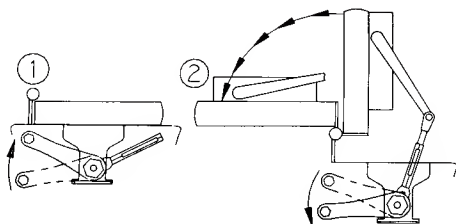
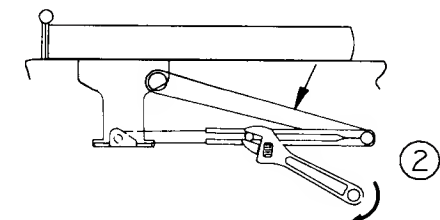
[CLICK HERE TO LEARN MORE](#)

#ICSF - 1

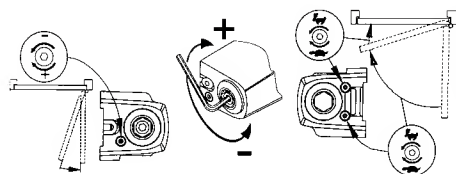




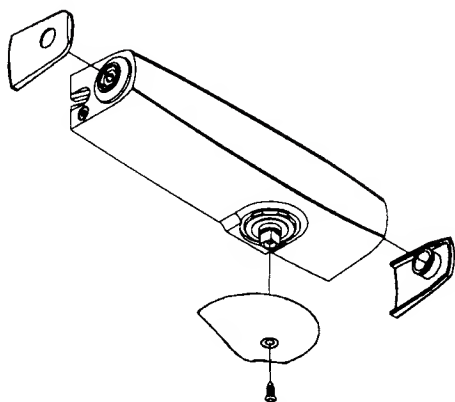
F.6. Connect arm to rod and shoe. Position arm as shown and tighten arm set screw.



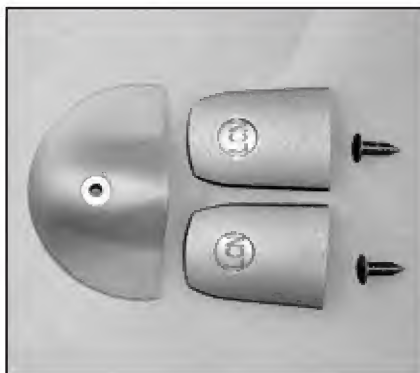
F.7. For hold open arm, adjust hold open angle.



F.8. Adjust spring poser as required. If necessary, adjust closing speeds and backcheck.



F.9. Attach shaft cover and end caps.

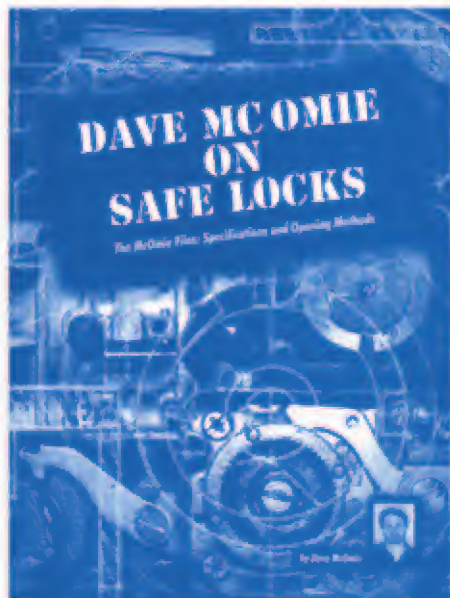


5. Mounting screws are completely concealed when closer endcaps are applied.

To be sure the closers are available when they are needed on the job, they are being offered on a "Fast Track" shipping program, with discounts that apply on any order quantity. This reduces inventory requirements and helps increase inventory turns for distributors.

More information on the new Quest 1371 Series line of door closers may be obtained from LCN CLOSERS, P.O. Box 100, Princeton, IL 61356-0100. Telephone 800-526-2400. Fax 800-248-1460 or by visiting the LCN web page at www.lcn-closers.com. A multi-media CD-ROM is also available. Circle 302 on Rapid Reply. **TNL**

Dave McOmie on Safe Locks



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#DMSL - 1

Quick Entry

UPDATE

by
Steve
Young



1999 JEEP GRAND CHEROKEE

Without a doubt, the most challenging new domestic vehicle of the 1999 model year to unlock is the all-new Jeep Grand Cherokee. (See photograph 1.) The 1999 Grand Cherokee is the first Chrysler vehicle to be equipped with a radically new moisture barrier system inside of the door. I doubt that Chrysler's main goal with this new system was to make the vehicle difficult to unlock, but the new moisture barrier acts as a very effective shield to protect the linkages.

On most vehicles, when you remove the door panel, the first thing you'll see is the moisture barrier. This is usually a thin layer of plastic or coated paper that protects the inner surface of the door panel from water or condensation that may build up inside of the door cavity. The moisture barrier is usually sealed against the inner skin of the door with a putty-like goo or contact cement. The seal will never be a perfect fit, nor is it intended to be. The whole idea is just to keep excess water from soaking into the upholstery too easily.

Apparently, Chrysler expects the owners of the new Grand Cherokee to actually drive these high-tech SUV's like they do in the TV commercials. You know the type, where the SUV plunges madly through rivers and streams, with mud and water flying in all directions while the driver listens to opera in absolute comfort.

Personally, I doubt if many of these vehicles will ever see a water hazard larger than a pothole, but if they do, the new Grand Cherokee doors shouldn't leak. The moisture barrier on this vehicle is a thick layer of rubber that reminds me of the stuff that heavy truck inner tubes are made from. This layer of rubber is secured to the inner skin of the door with black putty-like glue that forms a waterproof seal around the moisture barrier. As if that wasn't enough protection, the engineers added extra flaps of rubber to seal around the wires and linkage rods that have to pass through the moisture barrier. And then, just to make things interesting, they welded



1.



2. The heavy rubber moisture barrier pulled away from the door to expose the hidden linkage rods.

Quick Reference Guide

Vehicle: 1999 Jeep
Grand Cherokee

Direction Of Turn:
Counter Clockwise (no
lock on passenger door.)

Tool: TT-1008 or Jiffy-Jak
Vehicle Entry System

Lock System: Chrysler
8-cut system, Sidebar
ignition and plate-tumbler
door locks

Security System: Chrysler
Sentry-key transponder
system, optional

Code Series:
M0001-2618

Code Location: None

**TT-
1008
TOOL**

**Transponder Key
Blank:** 598495, Jet
Y160C-PHT, Ilco Y160-PTI

Standard Key Blank:
Strattec 596508, Jet Y-
159, Ilco P1795

Biting: Ignition: 1-8,
Doors & Rear Hatch: 2-8,
Glove Box: 6-8



3. Inserting an inspection light, use the long end of the TT-1008.



4. Reach beneath the rubber flap to grasp the control linkage rod.



5. Lever the linkage rod forward.

the bottom edge of each flap back to the main layer of the moisture barrier forming a sort of tube that the linkage rods and wires are threaded through (See photograph 2.)

This heavy rubber "tube" almost completely surrounds the inside lock control linkages, making them very hard to manipulate with a car-opening tool. If you know exactly where to look, there is just barely enough room to work the tip of the TT-1008 tool under the rubber flap. Once the tool is below the flap, it can grasp the inside lock control linkage rod.

To unlock the Grand Cherokee with the TT-1008 tool, (see illustration A) begin by wedging open the door as far to the rear as possible and inserting an inspection light. (See photograph 3.) You won't be able to see much inside of the door, but if you look deep into the door at the rear, you should be able to see the flap that is protecting the linkage rod.

Insert the long end of the tool into the door as far to the rear as possible and then lower it until you can slip the tip of the tool beneath the flap. Carefully lift the rear edge of the flap until you can see the linkage rod, then hook the end of the tool onto the linkage. (See photograph 4.)

Once you have a grip on the linkage rod, twist the tool to bind the linkage. Then, lever the linkage rod forward by pushing the top of the tool toward the rear of the vehicle. Pushing the linkage forward will unlock the vehicle. (See photograph 5.)

The linkage rod can be attacked by feel if desired. As you probe with the tool, aim the tip at about a 45° angle toward the rear of the vehicle. While probing for the linkage, be sure to watch the inside lock operator for movement.

Because this vehicle is equipped with doors that have a full frame around the window glass, it can also be unlocked with the Jiffy-Jak Vehicle Entry System. In addition, since the door locks are plate-tumbler locks, picking is often the best way to unlock the new Grand Cherokee. The direction of turn to pick the driver side door lock is counter clockwise. (There is no lock cylinder on the passenger side of the vehicle.) The door lock is equipped with seven opposing tumblers in positions 2 - 8. Each of the tumblers are serrated which makes picking the lock challenging but not impossible. **TNL**

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#SUB - 1,2,3,4,5,6

Sentry Old, Sentry New



by
Dale W. Libby, CMS

We of the safe-cracking persuasion are expected to be able to open any type of container that has a com-

bination lock or digital keypad present. It makes no difference if it is a safe, money chest, gun safe or whatever, we are expected to open and service the unit. For convenience, most people call these units safes, no matter what they really are.

Keep/Safe is a brand name of the Sentry Group. It includes wall safe units and in the floor safe units. We will look briefly at two floor safes that have

interchangeable safe heads. The modern version has a new twist in it that makes it really secure. First I will discuss the older unit and manipulation, and the new high security version that is manipulation resistant, believe it or not.

A number of large chain stores are closing and some really good deals are available on floor merchandise. I purchased two Sentry Keep/Safes for \$20.00 a piece. Both safes appear here and when I purchased them, they were locked with no combination. No problem. I will discuss several opening options for both units.

In *photograph 1*, we see the standard old style Sentry Keep/Safe head. As you can see the handle was broken off. I used the handle screw hole with a mini Super Scope to quickly dial the unit open. Since these units were not attached or sunk into the floor, there is more than one option for opening. The easiest method for opening Sentry Safes is to call in for the combination. If you are a Sentry dealer and have a password or an ALOA number, customer service will usually give you the combination over the phone for free. The serial number will appear on the safe head, or on the handle. The new customer service number for Sentry is (877) 736-8794. This is a toll free number.

The old style unit has three bolt down holes. Through these holes you can remove the back cover screws on either side of the unit. This will accomplish nothing, however. The



1. Old style Sentry Keep/Safe head. Handle was broken off.



2. Back view of safe head. Cover is held on by two screws (missing) and the bolts when the safe is locked.



3. Dual locking bolts are tangent to safe head. The wheels are silver and the driver is black on this unit.

back cover is also held on by the extended bolts when locked.

If you ever have a safe head, and do not have the combination, remove the two screws and the cover will lift enough for you to peek into the wheel pack and determine the gate positions and then transfer to the opening position. (See photograph 2.)

This particular safe is prone to be easily manipulated open by the 'bump' method. I will describe that method next. First, for the beginners out there the first thing to do with all safes before servicing them is to "Count the Wheels!" This is accomplished by turning the dial at least 4 times left, stopping at a pre-chosen number. Reverse the direction of dialing stopping 10 numbers above your chosen index number. Next turn the dial briskly past the chosen number. You should feel a bump. That is a drive pin slamming into a wheel fly picking it up. Continue on for the second wheel in the same manner. If you try for a third wheel in this safe head, you should not feel it pick up because there are only two wheels present.

Two bumps equal two wheels and a driver. I cannot emphasize it enough to count the wheels. If you determine two wheels and a driver, then the "Bump" opening method will work on this type of safe, and even other non-Sentry safes.

First, determine your drop-in number. On these safe heads there are no false gates. The dial will jump when it is in the drop-in area, which is quite wide on these units. Mark this number down. For instance 85.

Next, pick a number for the first wheel, how about 25. Turn all wheels



4. The Modern three wheel and driver version of the Keep/Safe floor safe head. Locking bolts are not tangent, but both safe heads are interchangeable.

right to 25, then rotate the dial left two times to 30, and back to the drop-in (85) and oscillate the dial at the drop-in area. If the dial does not stop, then turn the dial left until it stops at 30 and move it to 32, and back to the drop-in position. Turn, bump two numbers higher, and back.

With a little practice, you do not even have to look at the dial when you are moving through one rotation sequence.

Photograph 3, shows the two silver wheels and the black drive wheel. After going around the dial back to number 30, I dialed the wheels 3

times to 32-1/2 and bumped around again. I opened this safe head by manipulation. Time, about 15 minutes. Photograph 4, shows the new Keep/Safe safe head. The dial is offset and larger than the older dial. The handle is a one piece modular plastic. Both the new and the old safe heads are interchangeable in the same safe body. The serial number on this unit is P191955. When I called in for the combination, they gave me four numbers. Huh?

I counted the wheels, and there were three wheels and a driver... on a Sentry Safe? What has the world come to?

(Rhetorical, actually) Sentry considers the stop number of the combination (where the dial stops automatically) as an actual combination number. I consider this combination to be a 3 number combination with a last turn to Stop.

Before calling Sentry, I tried to manipulate the door open, but I could not get the drop-in position. I did get three wheels and a driver, however. I was shocked. Sentry became Diabolical and added an extra wheel. Imagine my surprise.

Since this was a free standing safe, I had the option of removing the two cover screws through the bottom of the safe in the holes provided by Sentry for mounting the safe to the floor. After removing these screws, the handle fell off. The cover also fell off and revealed the offset wheel pack and the unlocking lever. I could have done this, but I thought that the back cover was held on by the bolts as in the first incarnation, but it was not. I could have easily opened this safe in two minutes if I had known the cover could be removed when not attached to the floor safe.

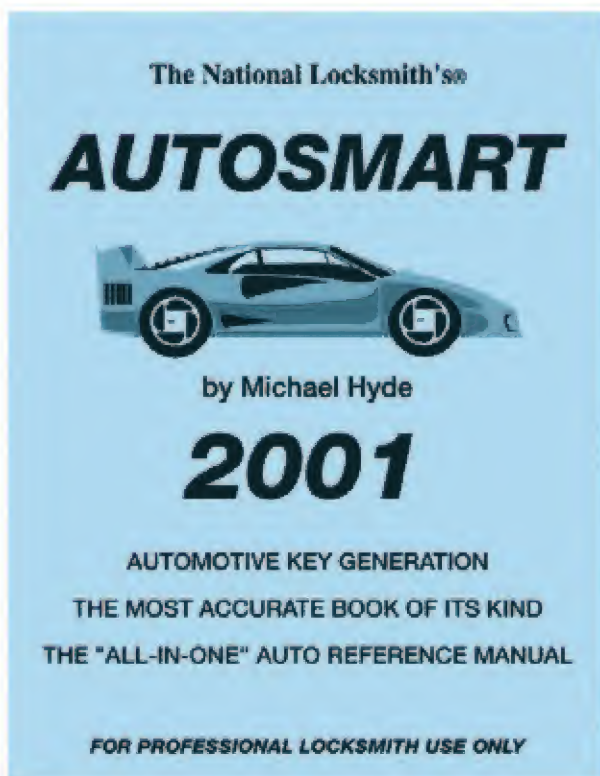
Photograph 5, shows the back cover

of the modern Keep/Safe with the offset dial. There should have been a screw in the "Remove Screw" hole, but it had fallen into the bottom of the safe. Without this screw, the safe became locked. The screw is designed to lock into a small slot on the wheel pack when the wheels are aligned at the open position. On the older version of the safe head, there was no provision for locking the wheels.

The locking bolts on the old and new heads are both spring loaded, but protrude at different angles. On the older safe head, the bolts came straight out from both sides of the safe head, at three o'clock and at the nine o'clock position. The new Keep/Safe head, however, has angular bolts that go straight up and straight down, from the two o'clock and the seven o'clock position.



5. Back of head showing locking bolt and "Remove Screw" hole. Wheels cannot be viewed through this hole with borescope.



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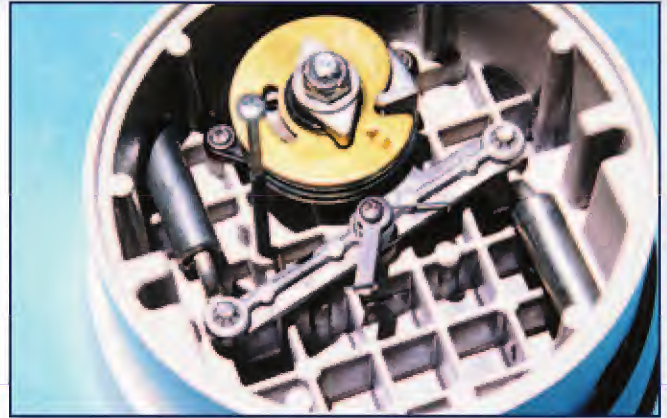


6. View of locked safe. The three wheels and driver can clearly be seen along with one of the two locking bolts.

Photograph 6, shows the three wheels and the brass driver. On the left you can see one of the locking bolts outside the safe door. These bolts, both top and bottom are attached to a fulcrum lever. When the combination is dialed, the locking lever pulls both bolts into the safe head.

I tried to view the wheels thought the "Remove Screw" screw

hole, but I could not see anything. Unlike earlier Sentry models that actually held the wheels in place, you could see the edge of the wheels through the screw hole. In this safe, the screw does not attach to the wheel edge, it blocks the lever from moving, which keeps the dial from turning by not allowing the locking lever to come out of the wheel pack.



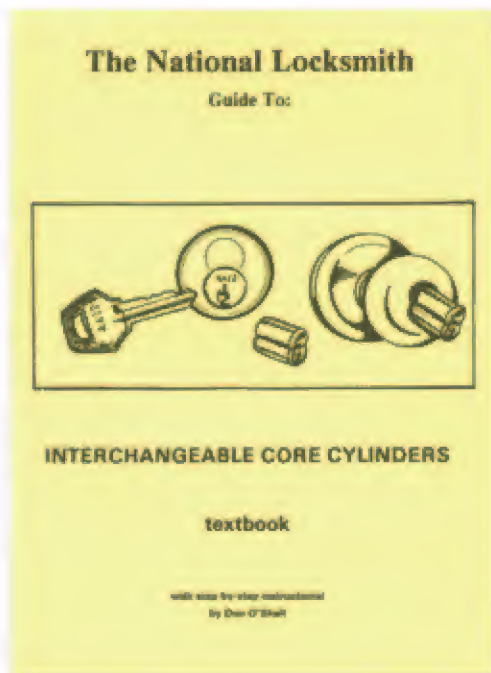
7. Combination lock opened, lever pivots, bolts are withdrawn. Adjacent to the bolt on the left is the "Remove Screw" installed. It keeps the pivot arm from fully locking the head.

The screw is inserted in *photograph 7*. Before the door can be locked, this screw must be removed.

To open a locked safe, carefully drill at 55 on the dial, about 3/4" out from the edge of the dial. This will allow the use of a borescope to view the wheels and to dial and transfer the combination to the drop-in area.

Open those Sentry safes, and prosper!

TNL



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- Schlage, Yale, Lockwood
- Medeco Removable Core

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The WHITER Side

Letters from Home
(That you hope you never get!)



by
**Sara
Probasco**

Letter #1:

July 27, 1999

Dear Don,

How's everything going at the convention? Hope y'all are having a great time.

I guess you've been too busy to watch the TV, but I thought I'd better drop you a line just in case somebody up there saw Uvalde on the news and got you worried. Also, we were wondering - I guess your workman's comp insurance is paid up?

Now don't you worry none. We're all pretty much okay.

Steve* should be out of the hospital by the day after tomorrow, and Brian's* getting around just fine, bandages and all.

They said it wasn't really a tornado, after all, and none of us was very seriously hurt. Only one of the big signs got blown down off the shop, and it didn't do much damage. All it hit was our blue service van. Wasn't that lucky! Centered the top just pretty as you please. Couldn't have done a neater job if it'd tried.

We called the body shop, and Joe* said he could probably have it fixed by the time you get home, assuming he can sort through the debris at his place and come up with his welding torch. Problem is, we haven't been able to free up any of our locksmith tools that are in there, yet. Oh well, look on the bright side. At least we don't have to worry about anybody stealing them in the meantime, right!

By the way, Joe* said tell you not to worry about the bill. Big jobs like that, he'll let the customer stretch the payments out over a year or so, if need be.

One reason nobody much was hurt in the storm - when the roof collapsed, we'd already closed up the store on account of the fire the day before, so nobody was there except Steve*, and he'd just gone by to see if anything could be salvaged. We must really be living right or something.

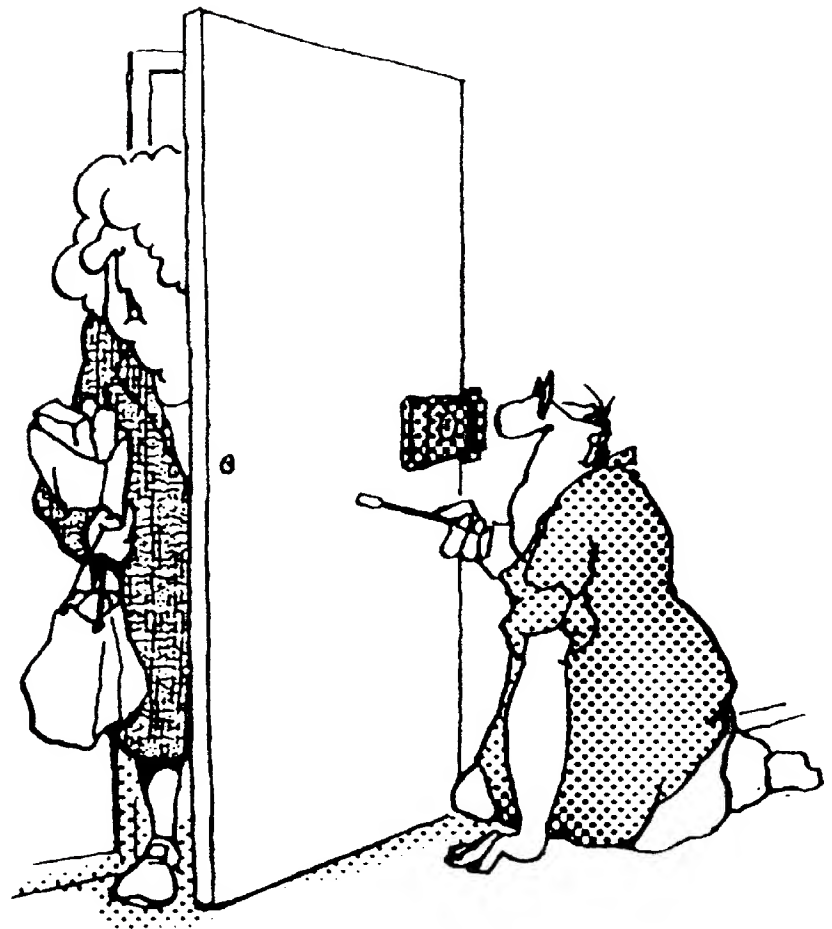
Brian* said tell you he's real sorry about the fire. He forgot to empty the trash in time for city pick-up on Friday, again, and he was just trying to help out, burning papers and boxes in the alley out back. I guess he didn't know if you pour gas on a roaring fire, the whole gas can could blow up. Steve* said he learned that a long time ago, but he wouldn't give us any details. I guess Brian's* just gonna have to go around looking kinda strange until his hair grows back.

Anyhow, things are looking up. We should be able to start taking service calls again in a couple more days. The white van's just about dried out. Now, before you get out of sorts, I want you

to know that really wasn't my fault. Nobody ever told me the flood gauge at seven mile crossing really meant what it said. Four feet of water! Who would have thought it?

Man, was it moving! I never knew such a big vehicle would float like that. Five miles down river in nothing flat! It took two winch trucks a couple hours to haul it out of all the brush and snags, once they found it. Guess all our tools and equipment must be pretty tough, huh? A little mud shouldn't hurt 'em too much. We're all pretty anxious to see how it made out.

Anyhow, I sure am glad I jumped out when I did. I cut my arm a bit



"I thought you were going to put a new lock on this door?"

- Thank you, Henry Clark, of Clark Security, for this cartoon.

when I did, but Mickey* got to dust off some of his old EMS skills and show us how a tourniquet works. Steve* threw up.

In the meantime, we got us a new Slim Jim from Auto Works*, and we been using Mickey's* uncle's old pickup for a service truck, but I think something's gone out in the transmission. I told Mickey* it was broke to begin with and that's probably why the old geezer couldn't get any insurance on it, but there's just no reasoning with the man. He keeps saying you owe him a new truck. Anyhow, I'm betting you can work something out with him, once you get back.

Speaking of betting, you know that lottery ticket you left for us to check for you? Well, you had a bunch of the numbers - I thought you had five, but Brian* says all six - anyhow, in all the excitement around here, we can't find it. Maybe you remember the numbers and they'll let you claim it anyhow, you think?

Well, guess I'd better close this out and let you get back to whatever you were doing. Y'all have yourselves a real good time, and don't you worry about a thing. We'll see you in a couple days.

Yours truly,
Mike*

P.S. Oops! I almost forgot - some sour-faced dude in a dark suit and tie came by today carrying a little skinny briefcase and wanting to speak to "the owner." Well, I remembered how you always say that usually means they're either a salesman, a lawyer, or a tax collector, and since he wasn't carrying any samples or anything, I figured he wasn't a salesman, so I gave him your address up there. Hope that's okay. You have a nice day, now.

Letter #2:

Hearst, Shaftner & Barnlee,
Attorneys at Law *

July 19, 1999

Dear Mr. Probasco,

Employees at what remains of your place of business have advised me I could reach you at this address in lieu of awaiting your return, and I thought it appropriate to immediately advise you of your rights, under the circumstances.

* Names have been changed to protect the guilty. **TNL**

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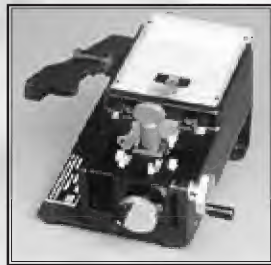
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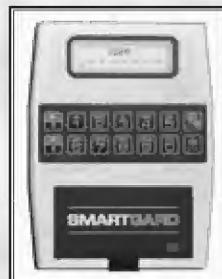
3rd Prize

Curtis 2100 Duplicator



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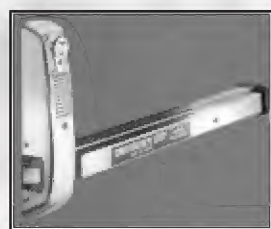
7th Prize

\$500 in ASP
Auto Locks



8th Prize

\$500 in Strattec Auto
Products



9th Prize

Arrow Exit Device and
Mounting Kit



10th Prize

Dewalt Cordless Drill



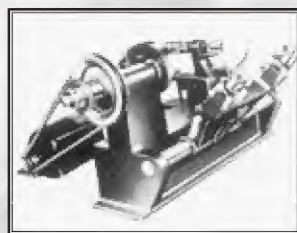
11th Prize

Detex ECL-8010W
Wetlock®



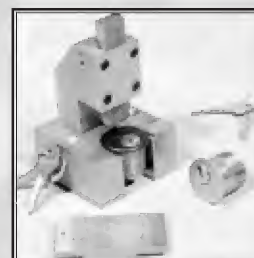
12th Prize

Securitron DK-26 Touchpad
and CPU Board for
Magnetic Lock



13th Prize

Foley-Belsaw 200
Key Machine



14th Prize

Accu-Mark™ Key
Stamping Machine



15th Prize

S&G 6120
Electronic Safe Lock

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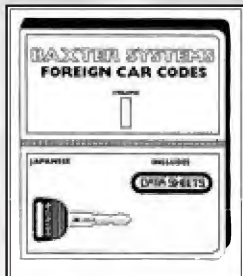
17th Prize

*Slide Lock's
 Master "Z" Tool Set*



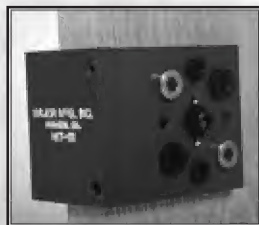
18th Prize

ESP Products Sampler



19th Prize

*Baxter JV-1 and
 JV-5 Code Books*



20th Prize

*Major Manufacturing's
 HIT-111 Drill Guide*



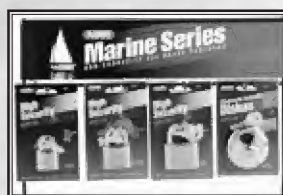
21st Prize

*Falle Pick Set From Mark
 Bates Associates*



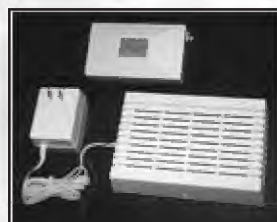
22nd Prize

*Sieveking Products
 Squeeze Play*



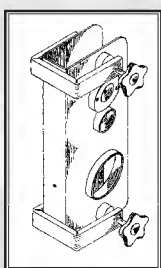
23rd Prize

*ABUS Padlock's Marine
 Padlock Display*



24th Prize

*Rodan's AV 100 Heavy
 Duty Door Annunciator*



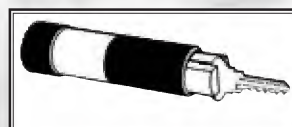
25th Prize

*A-1 J-50
 Installation Jig*



26th Prize

*M.A.G. Engineering
 Sampler*



27th Prize

*Framon Impressioning
 Handle*



The 15 Minute Safe Opening Technique

28th Prize

*Book — 15 Minute
 Safe Opening
 Technique by Jake
 Jakubowski*



BWD KWIKIT WINNER:
Longer Under the
Window Tool

I have been locksmithing for three years and have been specializing in lockouts. I use a quality set of auto lockout tools, plus have added a few specialty tools I've purchased from other tool companies.

There are several occasions where an under the window tool is needed for a late 1970's vehicle. The problem with these types of vehicles is that the manual horizontal slide button is located on the side of the armrest a good 12" from the top of the door panel! I have yet to see any factory-made under the window tool, with a long enough reach for these pesky vehicles!

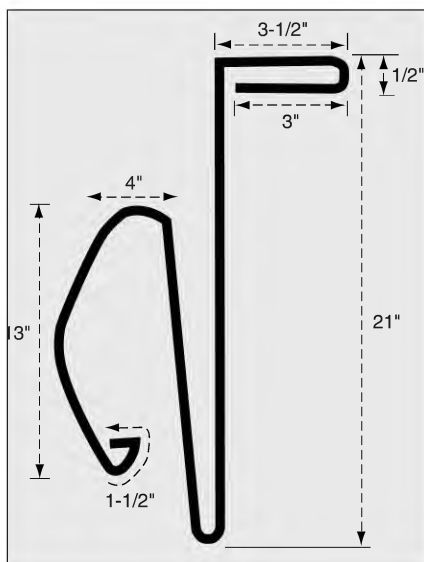


Illustration A.

To make these openings easy for me, I purchased three 6-foot lengths (5/16 diameter) of cold -rolled steel rods for under \$2.00 at the local scrap yard. I copied the design of my factory-made tool by shaping with a vise, but put a 13" reach on it. (See illustration A.)

Needless to say, I now have plenty of reach!

M.J. Stratton
Montana



WEDGECO™ KEY
EXTRACTOR WINNER:
Short Key Tip Stop for
Duplicators

Here's a tip for accurately cutting short keys and keys with no shoulders. Everyone who has tried to cut very short key blanks must have experienced the difficulty of setting the original key and the target key exactly alike in their respective vises.

Jake's Jabber...

I have often tried to contact a manufacturer for information, service or other reasons and have frequently found the task time-consuming and frustrating. Here's a list of power tool manufacturers that I use along with their addresses and phone numbers.

For future reference, I suggest that you scan, copy, cutout or memorize the attached list because you will need the info one day.



by Jake
Jakubowski

Hilti, Inc.

Rotary hammers and nail guns
 P.O. Box 21148
 Tulsa, OK 74121
 Phone: 918-252-6000

Hitachi Power Tools

Portable power tools
 3950 Steve Reynolds Blvd
 Norcross, GA 30093
 Phone: 800-829-4752

Jepson

Electric & pneumatic tools
 23140 Kashiwa Court
 Torrance, CA 90505
 Phone: 800-456-8665

Kett Tool Co.

Pneumatic tools
 5055 Madison Rd.
 Cincinnati, OH 45227
 Phone: 513-271-0333

Makita

Electric & pneumatic tools
 14930 Northam St.
 La Mirada, CA 90638
 Phone: 714-522-8088

Makita U.S.A., Inc.

1450 Feehanville Drive
 Mount Prospect, IL 60056
 Phone: 800-462-5482

Porter-Cable Corp.

Electric drills, saws & accessories
 4825 Highway 45
 North Jackson, TN 38305
 Phone: 901-668-8600

Ryobi

P.O. Box 1207
 Anderson, SC 29622
 Phone: 800-525-2579

Stanley-Bostitch

1000 Stanley Drive P.O. Box 7000
 New Britain, CT 06050
 Phone: 203-225-5111

As I'm sure you're aware, this list is by no means complete, but does cover most of the main producers of power tools that we, as locksmiths, use nearly everyday.

Before I go, Tom Lynch asked me to tell you that the 1999 Oldsmobile Alero key (B93) can be substituted with the Chrysler Y154.

See y'all next month.



Photograph 1.

I had three slots, .055" wide, machined in both the duplicator vises. (See photograph 1.) The slots are spaced 118" apart.

Now I have vice slots in which to insert a .055" flat steel gauge to butt the keys against for a perfect alignment.

*Ken Flockhart
Iowa*



**STRATTEC RACING
JACKET WINNER:
Exploding Air Cans**

In your August, 1999 Technitips column, Ron Pang of California recommended using compressed air cans to clean key machines etc. This is good, however, keeping these cans in your truck is not a good idea. These cans warn you not leave them in your vehicles and with good reason. To give you an example of the explosive nature of the cans, let me tell you about an incident that happened three years ago.

My wife bought a two pack of compressed air and left them on the front seat of our new Nissan Maxima while she went into another store on a moderately warm 85° day. While in the store she heard what she thought was two sonic booms. When she got back to car, the cans had exploded. The windshield was cracked all the way across, the cans had gone off like rockets and ricochet around the front seat destroying a door panel and tearing the leather seats. One even went through the armrest/junk compartment between the two seats and the other hit the cowl around the ignition lock destroying it.

The repair was in excess of \$2500. I don't want to imagine what could have happened if my wife or son had opened the door at the same time that it exploded. My advice is, do not leave compressed air cans in your vehicle. They will explode.

*Jeff Matteson
California*

Editor's Note: Jeff, you are right and I am sorry that I did not post the warning when I printed the tip. Thanks for bringing it to our attention.

**HPC
WINNER:
Best Tip**



I work on Best I/C cores

on an occasional basis at the most. Usually, there is no core key available, and the lock(s) needs to be rekeyed. Frequently, there are ways around it, but sometimes I have to drill the cylinder to remove it. Since this can be a messy procedure, I have found an alternative method to drilling the core out.

I drill a hole in the middle of the top half of the "figure eight" (right where it says: "BEST"), about 1/8 inch deep and just enough to go through the face cover. Then I tap an ice pick under the cover to pry it off.

Now the control shear line is visible: with a space on either side of the control bible. Next, I insert a bent wire with about a half-inch "L" through the left hole, to apply pressure on the control lug and pick the cylinder to the control shear line in much the same manner as picking a GM plug. For me, the pick gun works best for this.

I can then remove the core and disassemble to decode or, simply replace with a new cylinder.

*Bob Pulley
Illinois*

**SARGENT AND GREENLEAF
WINNER:**

Key Blank Tip

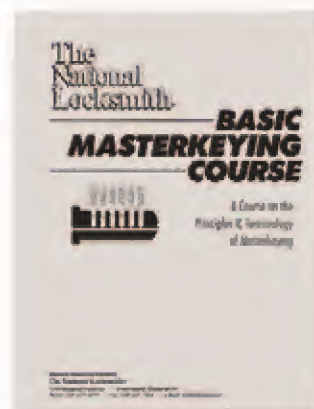


Here is some practical key blank information I recently discovered:

1. Ilco/EZ H60 (1190LN) and similar 1984-1/2 on Ford primary blanks can substitute for H78 (1196CM) used on 1996-99 non-transponder Ford Contour and Mercury Mystique autos, even though the milling lacks the center groove. Just make sure the blank selected has a sufficiently long blade. This is especially useful where an owner wants a small bow, valet-type duplicate key for the vehicle.

2. Best type I-core key section "DD" will also fit "D" section plugs,

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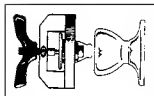
#MK - 1

October 1999 • 125

but the opposite is not true. "D" section blanks will not enter "DD" plugs.

3. Apparently, the new Master Lock Co. interchangeable cores are made by Killeen Security Products on an OEM basis. The Master Lock proprietary "Y" keyway is identical to the KSP KMT-300 "Locksmith Only" section sold by some distributors. No letters are stamped on the Master bow to indicate that keyway.

*Peter P. Schifferli
New York*



A-1 SECURITY PRODUCTS WINNER:
Picking Ace Without an Ace Pick

Here is my method of picking open an ace lock without an ace pick.

First, take a flat head Phillips screw with a head that is 5/16" in diameter. Cut off the threaded end of the screw so that you have 3/8" in length left. Next, cut a slot in the threaded end 1/8" deep. (See illustration B). Clamp the threaded end in a small pair of ViseGrips at an angle and use a hacksaw to make the cut. Don't clamp the head of the screw because it will deform the edges of the head. Deburr anything left raised by the manufacturing process on the face of the screw head. It must be very flat and smooth.

Now put a little super glue around the face of the screw and center it on the plug of the ace lock and hold it tight for about 20 seconds. Let the glue dry for a few minutes. Stick the handle of a tension wrench into the slot on the screw to apply turning pressure and pick the lock one pin at a time.

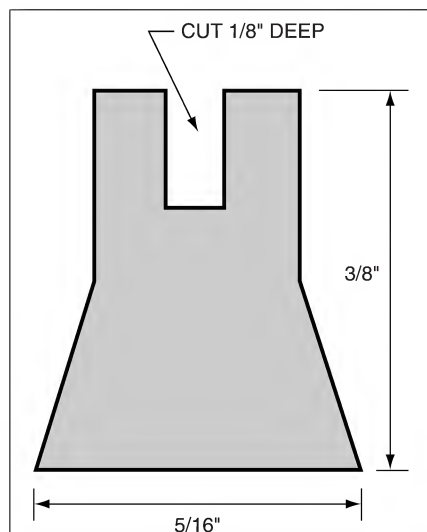


Illustration B.

While picking, if a pin feels "hard" and will not depress it usually means that pin is already picked. Go to the pins that will still move.

After the lock is open just grab the screw with pliers, rock a little, and it will come right off. Wipe the remaining dried glue off the lock with super glue remover and you're on your way to completing the job.

This method gives you excellent control over the amount of turning pressure put on the plug and the tension tool will stay in place as you increase or decrease turning force. This may not be the ideal way to open one of these locks, but it will work when you're in a jam. *David K. Morse
Kansas*



ILCO KEY BLANKS (100) WINNER:
Mortise Replacement Tip

I have found that when re-keying locks on glass storefront doors that use the Adams Rite type lock with mortise cylinders, that the cylinders usually unscrew with ease, but when you try putting them back, they sometimes will not screw in. Or, they are hard to screw in.

If you loosen the two screws that hold the lock in the door, you will be able to move the lock and let you align the cylinders so that they will screw in the lock with ease. Just be sure to re-tighten the lock's retaining screws back up. *Sig. Illegible
Oregon*



KEEDEX WINNER:
Tight Mortise Screw Removal

I have, like other locksmiths, run into mortise cylinders where the tailpiece screws were so tight that

it is almost impossible to loosen them without stripping out the heads of the screws.

To overcome this challenge, I secure the cylinder in my vise with the set screw millings against the vise jaws (see illustration C) and use a Phillips screwdriver and a small hammer to tap the top of the screwdriver while applying turning pressure.

This acts like an impact wrench - or nut driver - and usually removes the screws in very short order.

*Jerry Dionisio
Colorado*

Editor's Note: Jerry, thanks for the tip. I'm sure that everyone that has ever changed a lock combination has, at one time or another, run into the problem you outlined and have devised all sorts of ways of overcoming "the challenge". To ease the pain, let me point you to Keedex's "Spin Out" screwdriver for mortise cylinders. (See illustration D). This great tool takes the hassle out of dealing with tight mortise screws. For more information contact your local supplier or e-mail Keedex at spin@keedex.com.



TECH TRAIN TRAINING VIDEO WINNER:
ViseGrip Conversion

The specially modified ViseGrips shown in photograph 2, were made by me for impressioning keys. I simply cut a groove parallel to the jaws of the pliers which, as you see, snugly holds a key by the bow while I "rock" the key to get my impression marks.

I painted the pliers blue so they would be easy to spot in my toolbox and have been successfully using these modified ViseGrips for years.

*Peter Yohann, CRL
Washington*



SIEVEKING PRODUCTS GM E-Z WHEEL PULLER WINNER:
Easy Audi Key

I've found what I think is a great way to make keys for an Audi A80 without messing around trying to impression it or remove the non-removable handles, or trying to disassemble the glove box lock.

First, open the car and then head for the trunk. Once you open the trunk simply unscrew the plastic cover that sits in front of the trunk lock. Once you unscrew the cover, you will see a roll pin. Pull the roll pin off with

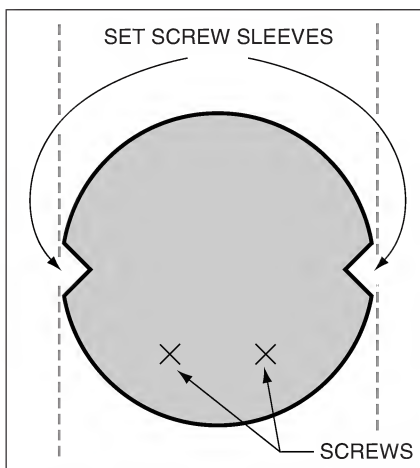


Illustration C.



Photograph 2.

a pair of pliers and the lock will come out in your hand. The trunk cylinder has all seven wafers, which allows you to easily make the key.

The whole process takes me less than ten minutes. *Daniel J. Mandell
North Carolina*

MAJOR

Major
MANUFACTURING, INC.

MANUFACTURING PRODUCTS

WINNER:

Drill Fixture Tip

When using a fixture to drill a door to install a deadbolt or entry set, I use a piece of notebook paper or business card stock to protect the paint/finish on the door. I wrap it around the door and then clamp the fixture on. The finish is protected and the customer is happy.

If I have to line up the fixture with a mark on the door edge, then all I have to do is cut out a piece of the paper in the center before wrapping it around the door and I can see my alignment marks.

Terry Bradshaw

Connecticut

SLIDE LOCK'S "Z" TOOL
OPENING SET WINNER:

**Undercover
Impressioning Tips**

Here are a few "tricks" from the old STASI (formerly the East Germany Secret Service).

If you don't have anything around you to copy a key on, or you can't "sight-read" it, press the key firmly against your arm skin for about 30 seconds. This leaves a good image impression of the key - for about fifteen to twenty minutes - on your

skin. In this way you can copy or decode the key image with a micrometer in a matter of seconds

If you want to copy a key in an office, for example, you can use the tiny metal piece that protects a floppy disk. Remove the metal from the floppy and then press the key firmly against the metal from the floppy disk by hand or with pliers.

Once you have an impression, smoke the impression with a lighter or match and you have a reliable outline of the key in the foil. Use that copy of this to later cut your key. Or you can cut the foil impression with a pair of scissors.

The foil impression, once "cut out" can be used to open a lock with the aid of a tension wrench, without duplicating the key to a regular blank.

Surprisingly, each of these "tips" work. I have seen them demonstrated and found these ideas a bit amusing, but felt they may be useful in the field one day.

Regards and cheers from France.

*Jiemme
France*

Editor's Note: Being an avid James Bond fan, Jiemme's "tips" caught my attention when he said they were used by the old East German Secret Police (STASI). I am passing them on to my readers, not for the purpose of surreptitious key making, but to give them another view of the key making "art". Thanks Jiemme.

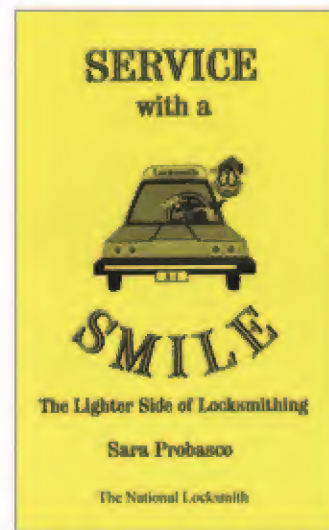
THE SIEVEKING AUTO
KEY GUIDE WINNER:
A Real Saab Story



I was asked to open a 1999 Saab model 95. My car-opening guide had no info on this vehicle even though I have the most recent update available. It has driver and passenger side airbags and although it has vertical buttons, they are designed in such a manner that my plastic button grabber could not get a good enough grip to lift the button.

Since this model is a four-door, I used my Slide Lock Japanese tool on

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#SWS

the rear passenger door. It went in very easy and lifted the button in short order.

The keys were in the trunk and the trunk release was not operating, probably due to the fact that the alarm was sounding. Fortunately the rear seats folded down providing easy access to the trunk. *William Kimbley California*

JET KEY BLANKS WINNER:



Key Extractor Tip

As a roadside service contractor, I get a lot of calls to remove broken keys. As you know, some of them can be very difficult. The best key extractor tool set I have used is the Wedgeco set. I have found that by using the two spiral extractors at the same time I have the best results.

Gently screw one extractor at a time, down the milling of the blank on each side of the key. Twist the two extractors together and rock them up and down in the keyway while pulling out. If you cannot get any outward pull on the extractors, get a pair of needle nose pliers. Lay the pliers sideways

across the face of the lock and grab the extractors close to the face of the lock and lever the extractors out.

William Kimbley California

Editor's Note: William, thanks for the tip. I have used the same process myself on numerous occasions. I would like to add that once you have firmly gripped the key between your extractors, and depending how far into the keyway the key is broken, the removal of the broken key can be eased by using a pick to raise the wafers or pins as you pull the key out.

HIGH TECH
TOOLS WINNER:
**Lexus Trunk
Opening Tip**

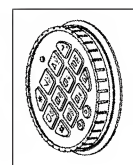


Here's a way to retrieve the keys locked in the trunk of a 1999 Lexus GS400.

Getting into the vehicle is easy with the under the window tool. Once in, pull the passenger door panel. Although the panel comes off fairly easily, be careful when you're removing it to prevent any damage. Next locate the linkage rod coming off the back of the lock. Disconnect the rod and simply push down on it. That

action will toggle the switch to reset the alarm and electrical system. Pull the trunk release and you're in.

Richard Posner Florida



LA GARD WINNER:
**Ten Second Sentry
Opening**

This tip will allow you to open a Sentry A3817 in about 10 seconds and it may very well work on other electronic Sentry units.

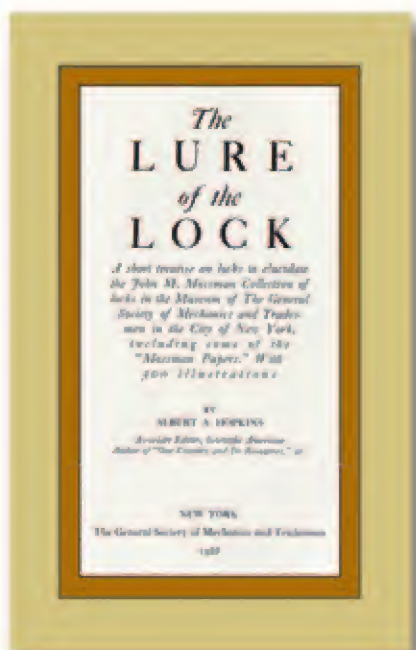
The battery pack is located under the keypad. Take out the battery pack and you will see two wires going down through a hole (black & white) into the safe.

Apply four or five volts to these wires and, bingo! The solenoid will retract. If it doesn't reverse the batteries to change the polarity. I've found you can even use the battery pack as your power source!

By the way, you will need to pick the little tubular lock (clockwise). This will be the most time consuming part of opening the safe.

Greg McCormick California

TNL



The Lure of the Lock

This hardcover book, compiled in 1928, features dozens and dozens of beautiful photographs on ancient through modern locks.

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#DALE

Time Wasters

by Ted Tate



If I had a dollar bill every time a locksmith told me they “really wanted to _____ but just didn’t have the time,” I’d now be retired! (Insert all the things you wish you had time for in your business day). Yet in a growing business it may seem as if you’d need a twenty-six hour day just to stay even.

It’s an unfortunate truth that many of the efforts we exert in business are wasted. Too often people spend countless hours on work that produces little, if any, results.

I’ve found that poor management of time is really the cause. In these cases it’s critical to focus on what your job responsibilities are, in what order of priority. Start with the most important things you must do and work down. Next, write out the duties of those around you. Then make a commitment that your daily work will be done in that order. Make a second commitment that you won’t do other peoples work, even if they ask. Certainly you’ll help and encourage them, but don’t get trapped into doing their job. When side issues come along, be strong enough to say, “No” to requests you shouldn’t be doing.

Here are successful solutions to 8 common time wasters.

1. Not Enough Time for Selling.

If you make sales calls then decide in advance when you’ll make them and how much time you’ll spend at it.

- Block out your prime selling hours and swear by something holy to you that you will only prospect or actually make sales calls at this time.

Let nothing interfere with this.

- I found that my best prospecting hours for cold calling (telemarketing) business people for appointments was between 7:00 AM and 10:00 AM. Three days a week, I refused to schedule anything else during these hours and focused only on setting appointments and making sales calls.

I’ve found the best sales call hours for business to business selling are Monday to Friday, 8:00 AM to 11:30 AM and again 1:00 PM to 4:00 PM. I had a rule for the salespeople I managed that if a salesperson was not going on sales calls during these hours, then they must be prospecting, nothing else!

- Depending upon what you sell and to whom you sell to, work out a daily selling schedule.

- Schedule other activities, quotations, proposals, customer service issues around, not during these hours.

2. Meetings

- Set objectives and agendas and stick with them.

- Have only the right people in attendance.

- Set time limits for meetings and keep them.

- If you don’t control the meeting but simply are an attendee then at the start of the meeting announce you have

important sales calls and you’ll need to leave at X o’clock. Remark you hope any information you need will be given by then.

3. Lack of Priorities

- Have written daily, weekly and monthly goals.

- Have a to-do list with priorities. Start with the top priority.

- Use a formal planner or calendar system regularly.

4. Being Overwhelmed

- Be able to say “no”. Don’t allow people to in list your assistance in issues that keep you from your top priority items. Letting people take advantage of you over and over is by far the wrong way to make friends.

- If you can’t say “no” to something then defer it to a lower priority time.

- Eliminate lower priority items from your schedule every chance you get.

- Delegate or hire out tasks when appropriate.

5. Crises

- When this happens, stop and think. Whose crisis is this, theirs or yours? Don't allow other people to create a crisis, then expect you to resolve it. Be able to say "no" and mean it. Here's an effective management strategy I learned years ago when people came running in with some kind of crisis. I'd simply tell them I was too busy right now but if they'd come back at the end of the day I'd be happy to talk with them. I'd ask them while they were waiting to see me if they'd write out the problem and write down two or three possible solutions for us to consider, that way we could get right to the problem.

Nine out of ten times once they wrote it out with the possible solutions, they'd resolve it and never see me. If they did come by I'd ask them to tell me the possible solutions. After they explained the solution possibilities I'd ask them, which seemed best to them. When they told me I'd tell them that perhaps they'd best try that.

Not all crises need immediate attention. Understand some people use crisis's to gain attention, some are too lazy, some have no skills or training in problem solving and some are too insecure to make decision on their own. They fear any decision-making so they let someone else decide that way they feel they can't be "blamed" if something goes badly. Once you show people how to think out the situation and give them the time to do so, they rarely need your help.

- Set time aside to anticipate and plan for potential problems and solutions. Keep your schedule flexible.

6. Travel Time

- Be careful to schedule calls for best travel efficiency. When planning sales calls, consider traffic, such as rush hours.

- Get a cell phone.

- Listen to self-improvement tapes while traveling. There are all kinds of interesting skills for business people available on cassette tapes. Travel time in your vehicle is ideal for learning skills.

7. Late Starts

- Schedule an early AM appointment or top priority item planned for a quick start.

8. Paperwork

- Have a specific time set aside

each day for paper work that does not conflict with your prime selling hours.

- Handle each piece of paper on your desk once.

- Never talk yourself into doing any kind of activity when you should be selling. That's called lying to yourself!

Here are a few of many firms offering time management systems. You can write, fax or telephone these firms below and they will send you a free catalog.

Day-Timers

Daytimer Plaza—Allentown

Pa 180195-1551

Telephone 800-225-5384

Fax: 800-452-7398

Web: www.daytimer.com

Franklin Covey

2200 West Parkway Blvd.

Salt Lake City, Utah 84119-2331

Telephone 800-654-1776

Fax: 800-242-1492

Web: wwwfranklincovey.com

U.S. Diary Company

600 Academy Dr.

Northbrook, IL 60062

Telephone 800-345-3545

Fax: 847-753-9265

Timewise

510 Fillmore Avenue

Tonawanda, NY 14150

Telephone 800-523-8060

Fax: 80-222-1934

Time Design

265 Main St

Agawam, Ma. 0100

Telephone 800-637-9942

Fax: 800-269-3075

Web: www.timedesign.com

Here's two excellent resources for self-improvement tapes and other similar materials. Contact them for free catalog's.

Nightingale-Conant

7300 N Lehigh Ave Niles, IL 60714

800-525-9000

Fax: 708-647-7145

CareerTrack

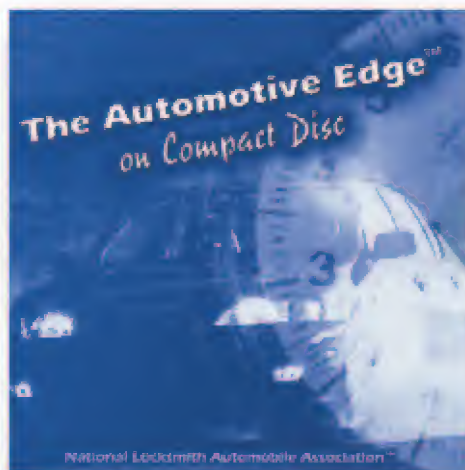
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#AE - CD



by Randy Mize

1999 LINCOLN TOWN CAR

WITH two original equipment manufacturers producing Ford 8-cut locks and keys, vehicles equipped with Huf locks and keys often get overlooked. Huf, a long-standing European manufacturer of automotive locks, including Mercedes, BMW, Porsche, VW and more, does not sell locks, keys or service kits into the locksmith automotive aftermarket. Thus, a locksmith going into the field often finds himself a little short of information and parts when servicing a Huf equipped vehicle.

To date, Huf manufactures locks and keys for the following Ford vehicles:

- 1996 to present Lincoln Town Car, Mercury Grand Marquis, Ford Windstar, and E-150, 250 and 350 Vans.
- 1997 to present Ford Mustang

The following procedure covers ignition, door and deck/trunk lock removal on the 1999 Lincoln Town Car. To service the Huf line, I use BWD (formerly All-Lock) locks, keys and service kits. BWD manufactures replacement ignition, door and trunk locks for all Ford 8-cut vehicles, and carries the only selection available for Huf equipped vehicles. To service the locks, regardless of the original equipment manufacturer, we used BWD's SK5011 and SK6249 service kits. Most BWD Ford 8-cut locks and service components fit across the Ford line regardless of the original equipment manufacturer of the locks. BWD's single LC6177U ignition lock replaces all 1996 to 1999 Ford 8-cut vehicles with Huf or Strattec locks and with or without a transponder, except for the Mercury Mark VIII, Mercury Villager and Nissan Quest.



1. FORD 8-CUT
IGNITION LOCK.

IGNITION LOCK REMOVAL

Ignition lock removal on the Lincoln Town Car is similar to all other Ford 8-cut vehicles. Insert the key and turn lock to the "ON" position. Insert a probe into the access hole in the lower shroud. Depress the lock retainer button and remove the lock. (See *photograph 1*.)

There are many tools and techniques that can be used for getting the ignition lock to turn. The EZ-Reader or Determinator, can be used to help in new key generation. Or, if the lock is damaged and cannot be turned using the key, drilling and picking or drilling may be necessary. Several companies make drill templates and force tools that make this task easy. For this article, we used a Ford 8-cut removal tool (see *photograph 2*) available from AABLE Locksmith, out of Ozone Park, New York or Sieveking Products in Rockford, IL.

To use this tool, pry off the ignition lock's plastic facecap. Insert the drill template to the face of the lock. Drill a hole to provide access to the lock's sidebar. Apply pressure to the sidebar using the sidebar pressure tool, and pick the lock. Once picked, rotate the lock to the ON position and depress the lock retainer button.

Replace with BWD LC6177 (supplied with non-transponder keys), LC6177U (Uncoded lock), or LC6180 (LC6177 supplied with transponder keys), or rekey the existing lock using SK5011 service kit.



2. AABLE
LOCKSMITH FORD
8-CUT REMOVAL
TOOL.



The National Locksmith Magazine Subscription

This is THE source for automotive technology, safe opening techniques, electronic security and much, much more.

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#SUB - 1,2,3,4,5,6

October 1999 • 145

DOOR LOCK REMOVAL

First, make sure the window is in the up position.

In order to remove the door lock on the Town Car, the door handle must be removed. (See photograph 3.) Unlike most vehicles serviced by locksmiths today, however, the handle of the Town Car is riveted to the body using extra large rivets. Being much larger than standard rivets, installation of the handle requires a special, large handle rivet gun.

The rivet gun used for this installation is the "Big Daddy," manufactured by Marson. (See photograph 4.) Comparable rivets and rivet guns are available from many Snap On or Mac Tool dealers, or specialty tool and fastener stores. Rivets are also available through your Ford dealer.

To remove, lift the handle and punch the rivet centers into the door. (See photograph 5.) (**IMPORTANT:** Make sure that the window is in the up position before performing this task! If window is left in the down position, the punched rivet centers will shatter the glass.)

Next, drill the rivets from the handle. Do not over drill and/or enlarge the rivet holes on the handle or the door. A 1/4" drill bit works fine. (See photograph 6.)

Although the rivets have been removed and the handle is loose, it cannot be removed without first dropping the inside door panel and releasing the handle linkage rod from the latch. (See photograph 7.) With the door panel removed, reach down to the door's latch. Locate and release the plastic rod retainer that holds the handle's linkage rod to the latch. Gently remove the handle from the door. (See photograph 8.)

With the handle removed, remove the door clip found on the edge of the door. (See photograph 9.) Then lift the lock out of the door, sliding the pawl over the linkage rod. (See photograph 10.)

When servicing this lock, the black plastic facecap in most instances, can be removed and reused. If facecap replacement is necessary, they are available in BWD service kit SK6249. Should the lock need to be replaced, since this is a Huf lock, use BWD DL6182 or DL6182U (uncoded). (See photograph 11.) Use BWD service kit SK5011 for rekeying.

DOOR LOCK AND HANDLE REINSTALLATION

Make sure window is in the up position.

Reinstall the door lock, making sure to correctly slide its pawl over the lock linkage rod. Insert lock clip at edge of door. Check lock operation before going onto next step.

Now reinstall the handle. DO NOT reconnect the handle linkage until the handle is completely reinstalled to the door.



3. TO REMOVE THE DOOR LOCK THE DOOR HANDLE MUST BE REMOVED.



4. THE RIVET GUN USED FOR THIS INSTALLATION IS THE "BIG DADDY," MANUFACTURED BY MARSON.



5. PUNCH THE RIVET CENTERS INTO THE DOOR.



6. DRILL THE RIVETS FROM THE HANDLE.

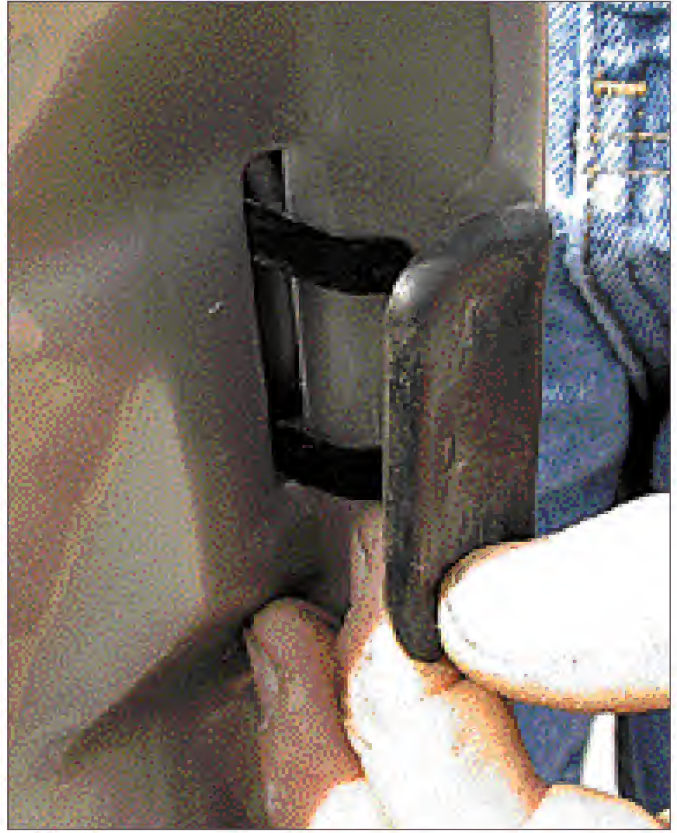


7. DROP THE INSIDE DOOR PANEL.



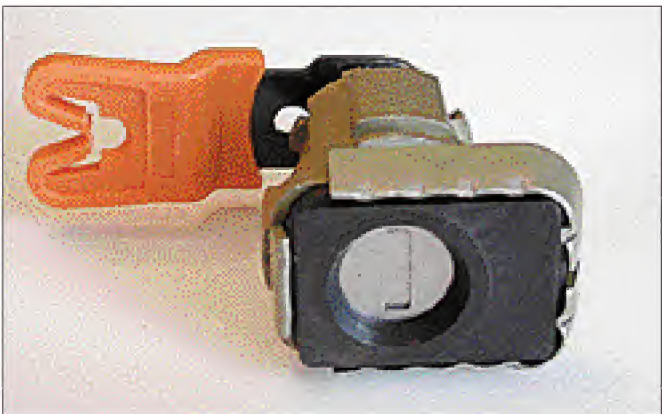
8. REMOVE THE
HANDLE FROM
THE DOOR.

9. REMOVE THE
DOOR CLIP FOUND
ON THE EDGE OF
THE DOOR.



10. SLIDE THE
PAWL OVER THE
LINKAGE ROD.

11. SHOULD THE LOCK
NEED TO BE REPLACED
USE BWD DL6182 OR
DL6182U (UNCODED).



To install handle, place handle onto door, carefully feeding the linkage rod into the correct position for later connection to the latch. Lift handle and insert and install rivets using the Marson Big Daddy rivet gun. (See photograph 12.)

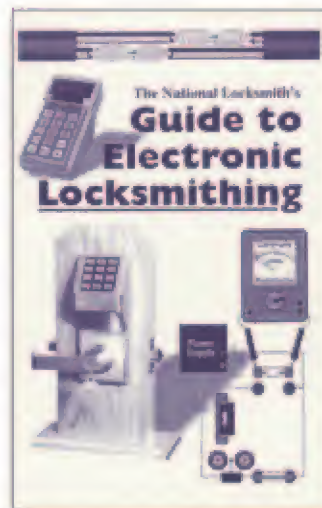
Reattach handle linkage rod to latch. Reinstall door panel. Test door lock and handle for proper operation.

TRUNK LOCK REMOVAL

Open deck lid to expose the 10mm nuts holding the deck lid trim and light panel in place. (See photograph 13.)

Remove all 10mm nuts holding the trim panel to the lid,

Electronic Locksmithing



Everyone knows there's big money in selling, installing and servicing electronic security such as mag locks, electronic strikes, and simple access control.

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#JJ - 1





12. LIFT
HANDLE AND
INSERT AND
INSTALL RIVETS.



14. REMOVE THE
DECK LIGHTS
FROM THE BACK
OF THE PANEL.



13. OPEN
DECK LID TO
EXPOSE THE
10MM NUTS.



15 Minute Safe Opening

This book deals exclusively with round head lift out doors. Shows five ways to open a Major; three ways to find the Dog Pin on a Major; four ways to open a Star; four ways to open a LaGard style round head.

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#JJ - 1

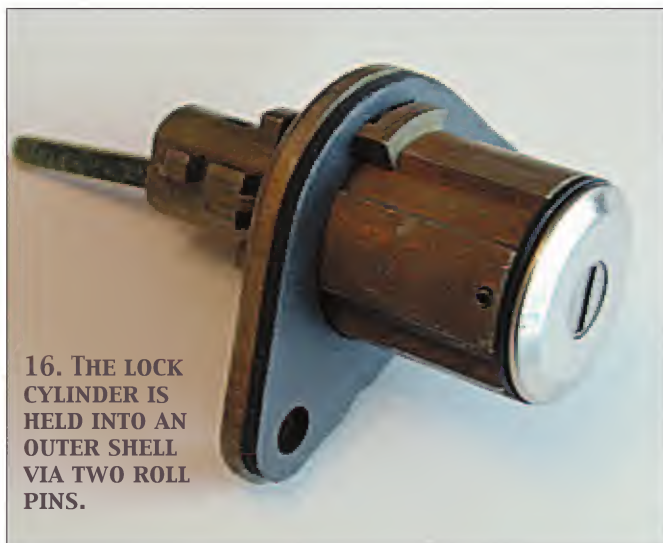
making sure to carefully remove the deck lights from the back of the panel. (See photograph 14.)

Like the door handle, the deck lock is held in place using the large rivets. Use the same procedure used for the door handle to remove and replace these rivets. (See photograph 15.)

Use BWD SK5011 service kit to service lock. If a replacement lock is needed, use BWD TL6183. (See photograph 16.) As can be seen in the photograph, the lock cylinder is held into an outer shell via two roll pins. These roll pins must be drilled and pulled before lock can be serviced. **TNL**



15. LIKE THE DOOR HANDLE, THE DECK LOCK IS HELD IN PLACE USING LARGE RIVETS.



16. THE LOCK CYLINDER IS HELD INTO AN OUTER SHELL VIA TWO ROLL PINS.

VEHICLE STATS

Ford 8-Cut System
Huf supplied locks and keys

Key Blanks

Ilco B72

Jet B72

BWD 96PT

Service Kits

BWD SK5011 & SK6249

Ignition Lock

BWD LC1680 (supplied)

with two transponder keys)

BWD LC6177U (uncoded lock only)

Door Lock

BWD DL6182 (coded)

BWD DL6182U

(uncoded)

Trunk Lock

BWD TL6183 (coded)

BWD TL6183U (uncoded)

Safe Opening Volumes 1-5



These are the classic safe books you will need to open most any safe easily and professionally.

- Volume 1 - Modern Safes
- Volume 2 - Modern Safes
- Volume 3 - Antique Safes
- Volume 4 - Antique Safes
- Volume 5 - Very Recent Safes

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#SO - 1, SO - 2, SO - 3, SO - 4, SO - 5

BWD V.A.T.S. Decoder

by Bob Sieveking



1. A 1995 Buick Park Avenue.

Sundays are always slow around here. I just settled in to sip a little iced tea and enjoy the calm of the late afternoon, when the phone snatched me from my rest. The lady at the other end of the line explained how she had somehow lost the keys to her fathers new Buick, and how she had called nearly every other shop in town to find someone that could come out and make a new key. She didn't seem bothered by the emergency price. She just wanted to know how fast I could get there. My Sunday afternoon nap would have to be put on hold, so I bid my easy chair a reluctant farewell, and was out the door.

The car was a 1995 Buick Park Avenue. (See *photograph 1.*) A quick check of the Facts, revealed that the 1995 Park Avenue used a 6-wafer V.A.T.S. ignition. The column was disassembled, and a working mechanical key made over the code. The key was tested with the ignition hanging out of the column. This way, it will not start the four-minute delay timer in the V.A.T.S. system. The mechanical key was duplicated over a BWD test key, and the V.A.T.S. interrogator was connected to the key.

The BWD LT7000 V.A.T.S. decoder I received was a lot more than I had expected. As you see in *photograph 2*, the kit includes a lot more than just the decoder. There is a complete set of fifteen single sided and fifteen double sided V.A.T.S. keys, one each of all fifteen resistance values. There are five each, of the single and double sided interrogator, or "Test," keys. A special interrogator adapter cable is included to adapt the tester unit to the test keys. The whole works is neatly organized in a padded hard case. I was really pleased with the kit. Everything

you need is in one box.

The decoder is housed in a heavy gauge metal hinged box. A standard 9-volt radio battery powers it, which is easily accessible in the cable tray, at the front of the tester. The cable tray is also home for the connecting wires.

There are three controls on the front panel. The ON/OFF switch controls power to the reader and timer portion of the decoder. When the power is switched on, the red LED (light emitting diode) is illuminated to indicate that power is "ON."

The "TIMER" switch starts the four-minute countdown timer. When the timer switch is actuated, the red LED is illuminated. After the four-minute count down, the LED goes out, to indicate that four minutes have elapsed.

The "CODE" control is a fifteen position rotary switch that selects the resistance value supplied to the connecting cable. This allows the resistances to be indexed through the fifteen possible values.

At the left of the front panel is the code identification receptacle. This universal receptacle will accommodate both



2. The BWD LT7000 V.A.T.S. decoder kit.



3. The value of the key in the test receptacle is read as a number twelve (12).

the single and double sided V.A.T.S. key blades. To identify the value of a V.A.T.S. key, turn on the power and insert a V.A.T.S. key into the test receptacle. The value of the key will be displayed in the two-digit LCD (liquid crystal display) window. Look closely, at *photograph 3*, and you will see that the value of the key in the test receptacle is read as a number twelve (12).

The LCD display is large and easily readable. When the key is removed, the LCD display shows "E," to indicate "error." If a damaged V.A.T.S. key is inserted into the test receptacle, and the reader can not measure or identify the resistance (the resistor being open or shorted), the display will show an "E." This indicates that you have a defective or bad key. Clean the contacts and try again. If the key still measures "error," you may need to replace the key.

Step-by-step clearly written instructions for the use of the interrogator are displayed inside the lid. Instructions are given, to: test and/or identify the V.A.T.S. key value, identify the code used by the vehicle, test for faults in the V.A.T.S. wiring after the steering column, and test for faults in the V.A.T.S. wiring in the steering column. By proving each section of the system, from the key to the wiring under the dash, you should be able to identify most any problem.

I have added a little step to my service procedure, for the V.A.T.S. autos, that you will not find in any book. Next time you're in a Radio Shack store, look for an "auto battery condition tester." This little device plugs into the cigar lighter and shows the condition of the cars battery. It has three LED indicators: red, yellow, and green. Red tells you the battery is low. Green indicates a good battery. The yellow indicates a marginal charge is in the battery. This little tester will save you interrogating a V.A.T.S. twice, because the battery was too low to operate the system. You can not interrogate a V.A.T.S. system if the battery is low. Keep the battery tester with your decoder.

Lets take a closer look at the new BWD "Interrogator, or Test, key." This new style key is unlike any other. You will notice that the electrical connections are made using standard spade type connectors. (*See photograph 4.*) The

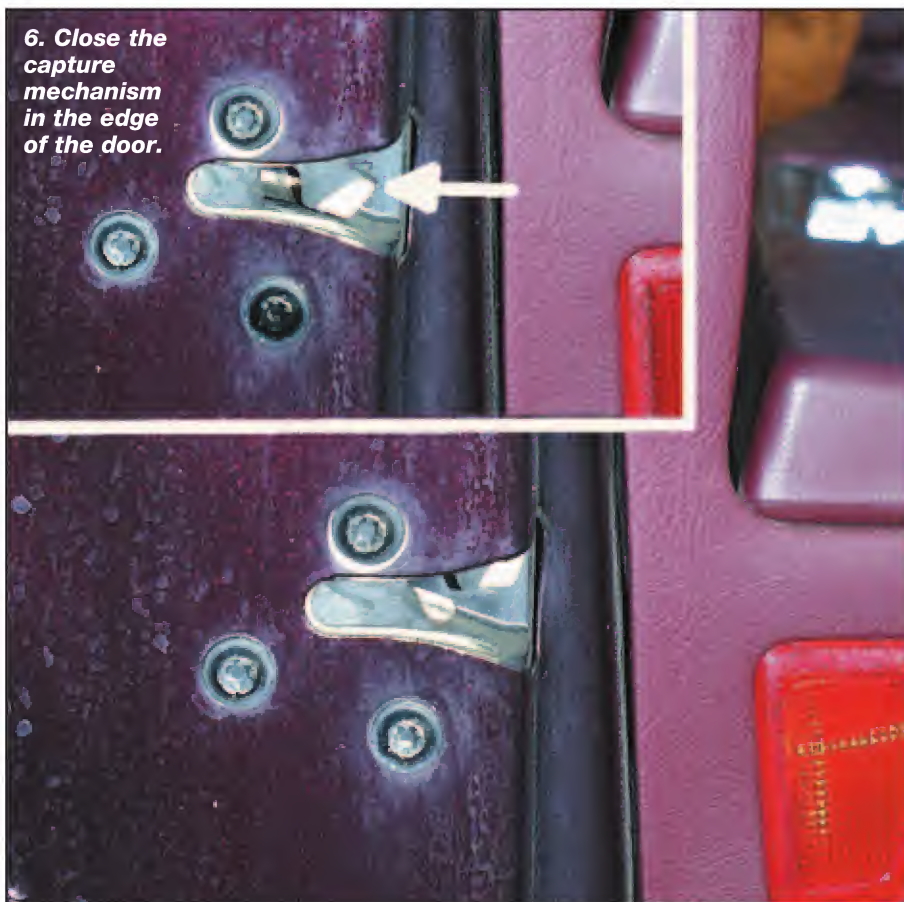
4. Connections are made using standard spade type connectors.



5. Insert the test key into the ignition.



6. Close the capture mechanism in the edge of the door.



non-conductive plastic key blade has two contact strips fixed to either side of the key blade. The key can be cut using a standard duplicator or code clipper, but you must remember to remove the plastic “fuzz” after making the key. Use a sharp knife to scrape the edge of the key. You don’t want to put those plastic shavings into the keyway.

Connect the interrogator adapter cable to the test key, and the interrogator to the adapter cable. Insert the test key into the ignition as you see in *photograph 5*. Now we’re ready to find the V.A.T.S. value. Set the code switch to #2 and try to start the car. (The #1 value was only used for the first couple of years by GM. V.A.T.S. value #1 will not be found on the 1995 autos.) If the car starts, you will have found the chip value for this car. If the car does not start, turn the ignition to the “OFF” position, and depress the timer switch, to start the four-minute countdown timer. The red LED will come on. There is no need to remove the test key from the ignition.

When the red LED goes out, turn the code selector switch to the number three (#3) position and try to start the car. If the car starts, the V.A.T.S. value is #3. If the car does not start, return the ignition switch to the “OFF” position and depress the timer switch to start the four-minute timer. You must wait four minutes before the V.A.T.S. module will test another key. Continue, trying each value,

until the car starts.

Because you have the key in the ignition, you will probably notice a continual chiming noise coming from somewhere under the dash. The “key in the ignition” warning chime can be annoying, if you have to listen to it for more than a few minutes. I searched around the door jam to find the little pressure switch that turns on the interior lights, and also the key alarm, but it wasn’t there. Waiting for the four-minute timer to “time out,” and not wanting close the door, I continued my search, to silence the infernal noise. I finally tried the door latch. (See *photograph 6*.) By closing the capture mechanism in the edge of the door, the persistent urgency of the chime was ended. Silence, at last. Don’t forget to pull the inside handle to open the capture mechanism before closing the door.

I didn’t have to wait long, the V.A.T.S. value was 5. The car started on the fifth try. Back to the hard case to locate a number five V.A.T.S. key. Insert the key into the test receptacle to make sure it is a

7. The new BWD style V.A.T.S. key.



number five key. No need to guess, and possibly waste a key blank. The cuts were duplicated over the new blank, and the key tested in the ignition.

Photograph 7, shows the new BWD style V.A.T.S. key. You will notice that there are two plastic straps that extend along the sides of the key blade to position the contacts for the resistor on the sides of the key. They appear to be silvered contacts.

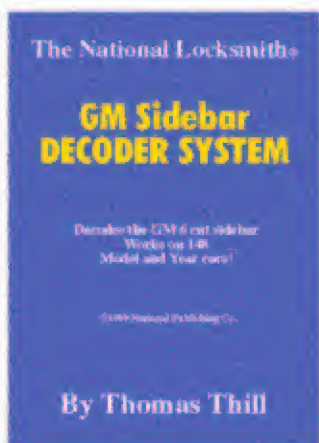
By the time the car started, I had a working door and trunk key. The job was done, and I could be on my way.

The BWD V.A.T.S. decoder was a pleasure to use, and with all the “value added” features of the complete kit, I was impressed.

The sun is going down, and I have an easy chair that’s calling my name. Don’t forget to look for that battery condition tester.

Good Luck.

For more information on BWD products call: (334) 874-9001. Circle 339 on rapid reply. **TNI**



GM Sidebar Lock Decoder System

Tom Thill, the author of a new book, has invented an amazing new way to make keys for six cut GM Sidebar Locks.

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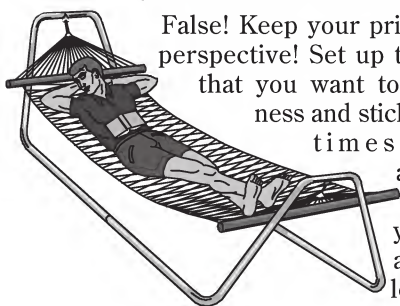
#TT - 1

Dispelling 10 Myths about Locksmithing

by John Robert

To help those new locksmiths just starting out in business I would like to dispel some myths that are presumed, but are not based in fact.

MYTH #1. *You need to be available all the time when you're first starting out or you will lose an account or good customer. True or False?*



False! Keep your priorities in perspective! Set up the times that you want to do business and stick to those times. If an account drops you for another locksmith because you have the day off, then there was no long-term commitment to begin with. If you want to take every Sunday off then by all means do it. Everyone needs rest and relaxation. Our bodies are not designed to run 24/7. If you do not learn to take a break away from the trade then you will become a slave to it, or worse, suffer from some physical problems.

MYTH #2. *The larger shops charge too much, which hurts the customer. True or False?*

False. The customer hurts himself or herself when they choose not to be prepared. Size of a shop does not dictate what



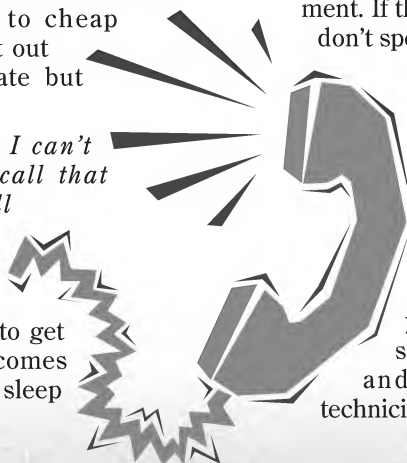
a customer is charged. Trip charge, labor rate, experience, material, and business expenses are the basis for charges. The customer is never a factor, only a purchaser. The larger shops are a great thermometer when it comes to pricing. If their prices are high but customers keep calling them for service then it is time to evaluate your pricing and make the necessary changes. Be competitive not cutthroat.

MYTH #3. *If I don't lower my prices when I'm first starting out I won't get any business. True or False?*

False. You will get business with high or low prices. However, lower pricing tends to be a hindrance when extra parts or material is needed. A customer will always assume that the price you quote covers everything. When the bill has to be raised after a quote was made, the customer will believe that they are getting ripped off. So price higher to cover unforeseen circumstances. By doing this it gives you the opportunity to give a customer a percentage off if you choose to later. Also established customers tend to get a little hot under the collar when you have to raise prices on them when they are used to cheap pricing. So start out high or moderate but never low.

MYTH #4. *I can't miss a single call that comes in or I'll lose business. True or False?*

False. You will not be able to get every call that comes in so don't lose sleep



over it. You will lose customers but you will also gain customers. It's an invisible scale that is constantly swaying back and forth.

MYTH #5. *If I give this customer a discount he says he will give me all his locksmith business. True or False?*

False. Unless it is a written contract this customer is not under any obligation to you in any way. So charge accordingly.

MYTH #6. *If I don't get all the latest tools, books, and materials I will not be able to do a thorough job. True or False?*

False. Build your shop or mobile business one job at a time. As demand for certain types of work comes in, consider purchasing the needed education, supplies, and equipment. The best way to gauge this is by the amount of work you turn away because you may lack some equipment. If the demand is not there, then don't spend the money.



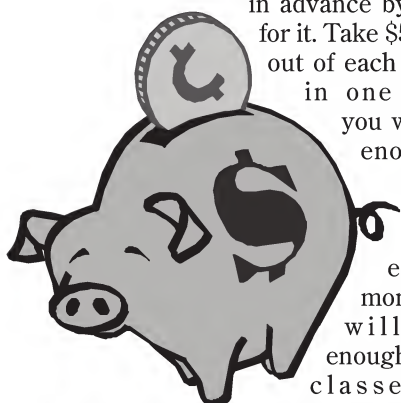
MYTH #7. *It doesn't matter what I look like when I'm going out on a job. True or False?*

False. Our society demands perfection and nothing less. Appearance is everything. In this order, you are a salesman first, a security consultant second, and then finally a skilled technician. Do you think you would

be taken seriously trying to land a big account if you looked like you just came out from under a vehicle? Of course not! First impressions are everything. If you know that a job you're going to will be messy, then bring extra clothes to change into. You will then be ready to go on the next call looking fresh and ready to sell to the next client.

MYTH #8. *I can't afford to go to classes or trade shows. True or False?*

False. Most classes will cost under \$100 unless it is a certification class. All classes are scheduled 6 months to 1 year in advance. So plan in advance by saving for it. Take \$5 dollars out of each job and in one month you will have enough for one class. At the end of 6 months you will have enough for 3-4 classes and



accommodations. This is the foresight of the business. Learn and Earn.

MYTH #9. *I don't need to go to classes. I can learn it all on the job. True or False?*

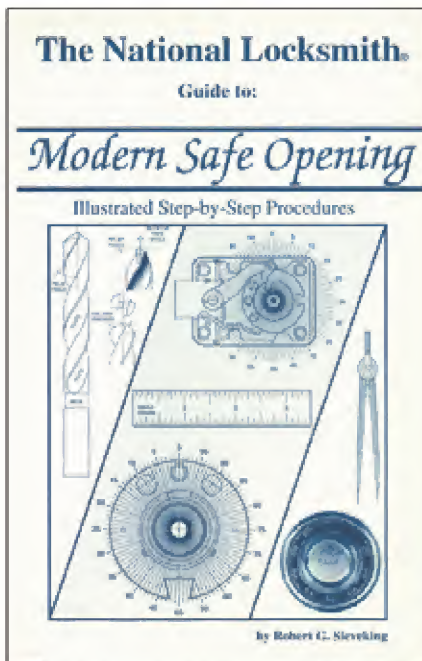
False. Certain jobs cannot be learned on the job. Examples: Safe Penetration, Detention locks, access control, and ADA law compliance. Taking classes, especially in areas that you would like to start servicing, gives you the ability to be competent on the job and before the customer. With the extra education

it leads to more high-end jobs and long term commercial accounts and larger profits.

MYTH #10. *I don't have the time to spend talking to every customer. True or False?*

False. Taking the time to listen to your customer will help you to understand their needs. This in turn will be a window of opportunity to sell more security to your customers or other contacts they give you. **TNL**

Modern Safe Opening



This book is a step-by-step How-To course in safe penetration. Opening safes is one of the most profitable aspects of the locksmithing business.

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#MSO - 1

Transponders



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#TS - 2001

KEY CODES

Fiat Code Series FR1-FR2000

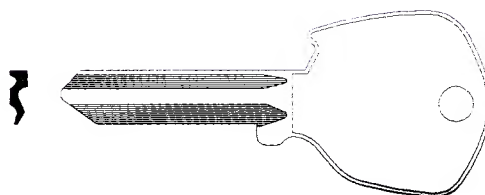
Manufacturer: Fiat
Code Series: FR1 - FR2000
Key Blanks:
Curtis: WS-2
Ilco: DM5
Ilco EZ: FT6R
Silca: DM1R
Taylor: F81E
Number of Cuts: 6
M.A.C.S.: 3
Key Gauged: Shoulder
Center of First Cut: .157
Cut to Cut Spacings: .138
Cut Depth Increments: .020

Spacings:

1 - .157
2 - .295
3 - .433
4 - .570
5 - .708
6 - .846

Depths:

0 = .265
1 = .246
2 = .226
3 = .206
4 = .187
5 = .167



HPC 1200CMB
Code Card: CF40

Jaw: A
Cutter: CW-1011
Gauge From: Shoulder
HPC 1200PCH (Punch):
PCH Card: N/A
Punch: N/A
Jaw: N/A

Silca UnoCode

Card Number: 5

HPC CodeMax

DSD #: 140

Jaw: A

Cutter: 1011

Curtis No. 15 Code Cutter:

Cam-Set: 15W-1

Carriage: 15W-1

Framon #2:

Cuts Start at: .158

Spacing: .1380

Block #: 2

Depth Increments: .020

Cutter: FC9040

Key Clamping Info: Use flip-up shoulder stop.

A-1 Pack-A-Punch

Quick Change Kit: N/A

Punch: N/A

Die: N/A

ITL 9000 & 950

Manufacturer ID: 135

Code	Bitting	Code	Bitting	Code	Bitting	Code	Bitting	Code	Bitting	Code	Bitting
FR0001	02042	FR0030	20204	FR0059	24220	FR0088	42404	FR0117	02453	FR0146	20411
FR0002	02044	FR0031	20224	FR0060	24240	FR0089	42420	FR0118	04013	FR0147	20413
FR0003	02204	FR0032	20240	FR0061	24402	FR0090	42440	FR0119	04015	FR0148	20415
FR0004	02240	FR0033	20242	FR0062	24404	FR0091	44020	FR0120	04031	FR0149	20431
FR0005	02242	FR0034	20244	FR0063	24420	FR0092	44022	FR0121	04033	FR0150	20433
FR0006	02402	FR0035	20402	FR0064	40202	FR0093	44024	FR0122	04035	FR0151	20435
FR0007	02404	FR0036	20404	FR0065	40204	FR0094	44040	FR0123	04213	FR0152	20451
FR0008	02420	FR0037	20420	FR0066	40220	FR0095	44042	FR0124	04215	FR0153	20453
FR0009	02422	FR0038	20422	FR0067	40224	FR0096	44202	FR0125	04231	FR0154	20455
FR0010	02424	FR0039	20424	FR0068	40240	FR0097	44204	FR0126	04233	FR0155	22013
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FR0016	04042	FR0045	22044	FR0074	40422	FR0103	02033	FR0132	04413	FR0161	22413
FR0017	04044	FR0046	22402	FR0075	40424	FR0104	02035	FR0133	04415	FR0162	22415
FR0018	04202	FR0047	22404	FR0076	40440	FR0105	02213	FR0134	04431	FR0163	22431
FR0019	04204	FR0048	22420	FR0077	40442	FR0106	02215	FR0135	04435	FR0164	22435
FR0020	04220	FR0049	22440	FR0078	42020	FR0107	02231	FR0136	04451	FR0165	22451
FR0021	04224	FR0050	22442	FR0079	42022	FR0108	02251	FR0137	04453	FR0166	22453
FR0022	04240	FR0051	24020	FR0080	42024	FR0109	02253	FR0138	20213	FR0167	22455
FR0023	04242	FR0052	24022	FR0081	42040	FR0110	02411	FR0139	20215	FR0168	24013
FR0024	04244	FR0053	24024	FR0082	42042	FR0111	02413	FR0140	20231	FR0169	24015
FR0025	04402	FR0054	24040	FR0083	42044	FR0112	02415	FR0141	20233	FR0170	24031
FR0026	04404	FR0055	24042	FR0084	42202	FR0113	02431	FR0142	20235	FR0171	24033
FR0027	04420	FR0056	24044	FR0085	42204	FR0114	02433	FR0143	20251	FR0172	24035
FR0028	04422	FR0057	24202	FR0086	42240	FR0115	02435	FR0144	20253	FR0173	24211
FR0029	04424	FR0058	24204	FR0087	42402	FR0116	02451	FR0145	20255	FR0174	24213

Fiat Code Series

FR1-FR2000

FR0175	24215	FR0236	44253	FR0297	22152	FR0358	42514	FR0419	20125	FR0480	42143
FR0176	24231	FR0237	44255	FR0298	22154	FR0359	42530	FR0420	20141	FR0481	42145
FR0177	24235	FR0238	02114	FR0299	22310	FR0360	42532	FR0421	20143	FR0482	42301
FR0178	24251	FR0239	02130	FR0300	22314	FR0361	42534	FR0422	20145	FR0483	42303
FR0179	24253	FR0240	02132	FR0301	22330	FR0362	42552	FR0423	20303	FR0484	42321
FR0180	24255	FR0241	02134	FR0302	22352	FR0363	42554	FR0424	20321	FR0485	42325
FR0181	24411	FR0242	02152	FR0303	22354	FR0364	44112	FR0425	20323	FR0486	42341
FR0182	24413	FR0243	02154	FR0304	22510	FR0365	44114	FR0426	20325	FR0487	42345
FR0183	24415	FR0244	02310	FR0305	22512	FR0366	44130	FR0427	20341	FR0488	42521
FR0184	24431	FR0245	02312	FR0306	22514	FR0367	44132	FR0428	20343	FR0489	42523
FR0185	24435	FR0246	02314	FR0307	22530	FR0368	44134	FR0429	20345	FR0490	42525
FR0186	24451	FR0247	02330	FR0308	22532	FR0369	44152	FR0430	22103	FR0491	42541
FR0187	24453	FR0248	02332	FR0309	22552	FR0370	44154	FR0431	22125	FR0492	42543
FR0188	40213	FR0249	02352	FR0310	22554	FR0371	44310	FR0432	22141	FR0493	42545
FR0189	40215	FR0250	02354	FR0311	24112	FR0372	44312	FR0433	22143	FR0494	44103
FR0190	40231	FR0251	02510	FR0312	24114	FR0373	44314	FR0434	22145	FR0495	44121
FR0191	40233	FR0252	02512	FR0313	24130	FR0374	44330	FR0435	22301	FR0496	44123
FR0192	40235	FR0253	02514	FR0314	24132	FR0375	44352	FR0436	22303	FR0497	44125
FR0193	40251	FR0254	02530	FR0315	24134	FR0376	44510	FR0437	22325	FR0498	44141
FR0194	40253	FR0255	02532	FR0316	24152	FR0377	44512	FR0438	22341	FR0499	44143
FR0195	40255	FR0256	02534	FR0317	24154	FR0378	44514	FR0439	22345	FR0500	44145
FR0196	40411	FR0257	02552	FR0318	24310	FR0379	44530	FR0440	22521	FR0501	44301
FR0197	40413	FR0258	02554	FR0319	24312	FR0380	44532	FR0441	22525	FR0502	44303
FR0198	40415	FR0259	04112	FR0320	24314	FR0381	44552	FR0442	22541	FR0503	44325
FR0199	40431	FR0260	04114	FR0321	24330	FR0382	02103	FR0443	22543	FR0504	44341
FR0200	40433	FR0261	04130	FR0322	24352	FR0383	02123	FR0444	22545	FR0505	44521
FR0201	40435	FR0262	04132	FR0323	24354	FR0384	02125	FR0445	24103	FR0506	44523
FR0202	40451	FR0263	04134	FR0324	24510	FR0385	02141	FR0446	24121	FR0507	44525
FR0203	40453	FR0264	04152	FR0325	24512	FR0386	02143	FR0447	24123	FR0508	44541
FR0204	40455	FR0265	04154	FR0326	24514	FR0387	02145	FR0448	24125	FR0509	01214
FR0205	42013	FR0266	04310	FR0327	24530	FR0388	02301	FR0449	24141	FR0510	01230
FR0206	42015	FR0267	04312	FR0328	24532	FR0389	02303	FR0450	24143	FR0511	01252
FR0207	42031	FR0268	04314	FR0329	24534	FR0390	02321	FR0451	24145	FR0512	01254
FR0208	42033	FR0269	04330	FR0330	24552	FR0391	02325	FR0452	24301	FR0513	01410
FR0209	42035	FR0270	04332	FR0331	40130	FR0392	02341	FR0453	24303	FR0514	01412
FR0210	42213	FR0271	04334	FR0332	40132	FR0393	02343	FR0454	24321	FR0515	01414
FR0211	42215	FR0272	04352	FR0333	40134	FR0394	02521	FR0455	24325	FR0516	01430
FR0212	42231	FR0273	04354	FR0334	40152	FR0395	02523	FR0456	24341	FR0517	01432
FR0213	42235	FR0274	04510	FR0335	40154	FR0396	02525	FR0457	24345	FR0518	01434
FR0214	42251	FR0275	04512	FR0336	40312	FR0397	02541	FR0458	24521	FR0519	01452
FR0215	42253	FR0276	04514	FR0337	40314	FR0398	02543	FR0459	24523	FR0520	01454
FR0216	42255	FR0277	04530	FR0338	40330	FR0399	02545	FR0460	24525	FR0521	03012
FR0217	42411	FR0278	04532	FR0339	40332	FR0400	04103	FR0461	24541	FR0522	03014
FR0218	42413	FR0279	04534	FR0340	40334	FR0401	04121	FR0462	24543	FR0523	03032
FR0219	42415	FR0280	04552	FR0341	40352	FR0402	04123	FR0463	40121	FR0524	03034
FR0220	42431	FR0281	04554	FR0342	40354	FR0403	04125	FR0464	40123	FR0525	03212
FR0221	42435	FR0282	20130	FR0343	42112	FR0404	04141	FR0465	40125	FR0526	03214
FR0222	42451	FR0283	20132	FR0344	42114	FR0405	04143	FR0466	40141	FR0527	03230
FR0223	42453	FR0284	20134	FR0345	42130	FR0406	04145	FR0467	40143	FR0528	03232
FR0224	42455	FR0285	20152	FR0346	42132	FR0407	04301	FR0468	40145	FR0529	03234
FR0225	44013	FR0286	20154	FR0347	42134	FR0408	04303	FR0469	40321	FR0530	03252
FR0226	44015	FR0287	20312	FR0348	42152	FR0409	04321	FR0470	40323	FR0531	03254
FR0227	44031	FR0288	20314	FR0349	42154	FR0410	04323	FR0471	40325	FR0532	03410
FR0228	44033	FR0289	20330	FR0350	42310	FR0411	04325	FR0472	40341	FR0533	03412
FR0229	44035	FR0290	20332	FR0351	42312	FR0412	04341	FR0473	40343	FR0534	03414
FR0230	44211	FR0291	20334	FR0352	42314	FR0413	04521	FR0474	40345	FR0535	03430
FR0231	44213	FR0292	20352	FR0353	42330	FR0414	04523	FR0475	42103	FR0536	03432
FR0232	44215	FR0293	20354	FR0354	42352	FR0415	04525	FR0476	42121	FR0537	03434
FR0233	44231	FR0294	22114	FR0355	42354	FR0416	04541	FR0477	42123	FR0538	03452
FR0234	44235	FR0295	22130	FR0356	42510	FR0417	04543	FR0478	42125	FR0539	03454
FR0235	44251	FR0296	22134	FR0357	42512	FR0418	20123	FR0479	42141	FR0540	21030

Fiat Code Series

FR1-FR2000

FR0541	21032	FR0602	41430	FR0663	03421	FR0724	41225	FR0785	03302	FR0846	25524
FR0542	21034	FR0603	41432	FR0664	03423	FR0725	41241	FR0786	03304	FR0847	25540
FR0543	21214	FR0604	41434	FR0665	03425	FR0726	41243	FR0787	03324	FR0848	25542
FR0544	21230	FR0605	41452	FR0666	03441	FR0727	41245	FR0788	03340	FR0849	41120
FR0545	21234	FR0606	41454	FR0667	21023	FR0728	41401	FR0789	03342	FR0850	41122
FR0546	21252	FR0607	43012	FR0668	21025	FR0729	41403	FR0790	03520	FR0851	41124
FR0547	21254	FR0608	43014	FR0669	21041	FR0730	41421	FR0791	03522	FR0852	41140
FR0548	21410	FR0609	43030	FR0670	21043	FR0731	41423	FR0792	03524	FR0853	41142
FR0549	21412	FR0610	43032	FR0671	21045	FR0732	41425	FR0793	03540	FR0854	41144
FR0550	21414	FR0611	43034	FR0672	21203	FR0733	41441	FR0794	03542	FR0855	41302
FR0551	21430	FR0612	43212	FR0673	21225	FR0734	41443	FR0795	21124	FR0856	41304
FR0552	21432	FR0613	43214	FR0674	21241	FR0735	41445	FR0796	21140	FR0857	41320
FR0553	21434	FR0614	43230	FR0675	21243	FR0736	43021	FR0797	21142	FR0858	41322
FR0554	21452	FR0615	43252	FR0676	21245	FR0737	43023	FR0798	21144	FR0859	41324
FR0555	21454	FR0616	43254	FR0677	21401	FR0738	43025	FR0799	21302	FR0860	41340
FR0556	23012	FR0617	43410	FR0678	21403	FR0739	43041	FR0800	21304	FR0861	41342
FR0557	23014	FR0618	43412	FR0679	21421	FR0740	43043	FR0801	21320	FR0862	41344
FR0558	23030	FR0619	43414	FR0680	21423	FR0741	43045	FR0802	21340	FR0863	41520
FR0559	23032	FR0620	43430	FR0681	21425	FR0742	43203	FR0803	21342	FR0864	41522
FR0560	23034	FR0621	43452	FR0682	21441	FR0743	43225	FR0804	21344	FR0865	41524
FR0561	23210	FR0622	45210	FR0683	21443	FR0744	43241	FR0805	21520	FR0866	41540
FR0562	23214	FR0623	45212	FR0684	21445	FR0745	43245	FR0806	21522	FR0867	41542
FR0563	23230	FR0624	45214	FR0685	23021	FR0746	43401	FR0807	21524	FR0868	41544
FR0564	23252	FR0625	45230	FR0686	23023	FR0747	43403	FR0808	21540	FR0869	43102
FR0565	23254	FR0626	45232	FR0687	23025	FR0748	43421	FR0809	21542	FR0870	43104
FR0566	23410	FR0627	45234	FR0688	23041	FR0749	43425	FR0810	21544	FR0871	43120
FR0567	23412	FR0628	45252	FR0689	23043	FR0750	43441	FR0811	23102	FR0872	43122
FR0568	23414	FR0629	45254	FR0690	23045	FR0751	45201	FR0812	23104	FR0873	43124
FR0569	23430	FR0630	45410	FR0691	23201	FR0752	45203	FR0813	23120	FR0874	43140
FR0570	23452	FR0631	45412	FR0692	23203	FR0753	45221	FR0814	23124	FR0875	43142
FR0571	23454	FR0632	45414	FR0693	23225	FR0754	45223	FR0815	23140	FR0876	43144
FR0572	25210	FR0633	45430	FR0694	23241	FR0755	45225	FR0816	23142	FR0877	43302
FR0573	25212	FR0634	45432	FR0695	23245	FR0756	45241	FR0817	23144	FR0878	43304
FR0574	25214	FR0635	45452	FR0696	23401	FR0757	45243	FR0818	23302	FR0879	43320
FR0575	25230	FR0636	01203	FR0697	23403	FR0758	45245	FR0819	23304	FR0880	43340
FR0576	25232	FR0637	01225	FR0698	23421	FR0759	45401	FR0820	23320	FR0881	43520
FR0577	25234	FR0638	01241	FR0699	23425	FR0760	45403	FR0821	23340	FR0882	43522
FR0578	25252	FR0639	01243	FR0700	23441	FR0761	45421	FR0822	23520	FR0883	43524
FR0579	25254	FR0640	01245	FR0701	25201	FR0762	45423	FR0823	23522	FR0884	43540
FR0580	25410	FR0641	01403	FR0702	25203	FR0763	45425	FR0824	23524	FR0885	43542
FR0581	25412	FR0642	01421	FR0703	25221	FR0764	45441	FR0825	23540	FR0886	45102
FR0582	25414	FR0643	01423	FR0704	25223	FR0765	01304	FR0826	23542	FR0887	45104
FR0583	25430	FR0644	01425	FR0705	25225	FR0766	01320	FR0827	23544	FR0888	45120
FR0584	25432	FR0645	01441	FR0706	25241	FR0767	01322	FR0828	25102	FR0889	45122
FR0585	25434	FR0646	01443	FR0707	25243	FR0768	01324	FR0829	25104	FR0890	45124
FR0586	25452	FR0647	01445	FR0708	25245	FR0769	01340	FR0830	25120	FR0891	45140
FR0587	25454	FR0648	03021	FR0709	25401	FR0770	01342	FR0831	25122	FR0892	45142
FR0588	41030	FR0649	03023	FR0710	25403	FR0771	01520	FR0832	25124	FR0893	45144
FR0589	41032	FR0650	03025	FR0711	25421	FR0772	01522	FR0833	25140	FR0894	45302
FR0590	41034	FR0651	03041	FR0712	25423	FR0773	01524	FR0834	25142	FR0895	45304
FR0591	41210	FR0652	03043	FR0713	25425	FR0774	01540	FR0835	25144	FR0896	45320
FR0592	41212	FR0653	03045	FR0714	25441	FR0775	01542	FR0836	25302	FR0897	45322
FR0593	41214	FR0654	03201	FR0715	25443	FR0776	01544	FR0837	25304	FR0898	45324
FR0594	41230	FR0655	03203	FR0716	41023	FR0777	03102	FR0838	25320	FR0899	45340
FR0595	41232	FR0656	03221	FR0717	41025	FR0778	03104	FR0839	25322	FR0900	45342
FR0596	41234	FR0657	03225	FR0718	41041	FR0779	03120	FR0840	25324	FR0901	45520
FR0597	41252	FR0658	03241	FR0719	41043	FR0780	03122	FR0841	25340	FR0902	45522
FR0598	41254	FR0659	03243	FR0720	41045	FR0781	03124	FR0842	25342	FR0903	45524
FR0599	41410	FR0660	03245	FR0721	41203	FR0782	03140	FR0843	25344	FR0904	45540
FR0600	41412	FR0661	03401	FR0722	41221	FR0783	03142	FR0844	25520	FR0905	45542
FR0601	41414	FR0662	03403	FR0723	41223	FR0784	03144	FR0845	25522	FR0906	01315

Fiat Code Series

FR1-FR2000

FR0907	01351	FR0968	25155	FR1029	45151	FR1090	30241	FR1151	54021	FR1212	14412
FR0908	01353	FR0969	25311	FR1030	45153	FR1091	30243	FR1152	54023	FR1213	14414
FR0909	03113	FR0970	25313	FR1031	45155	FR1092	30245	FR1153	54025	FR1214	14430
FR0910	03115	FR0971	25315	FR1032	45311	FR1093	30403	FR1154	54041	FR1215	14432
FR0911	03131	FR0972	25331	FR1033	45313	FR1094	30421	FR1155	54043	FR1216	14452
FR0912	03133	FR0973	25333	FR1034	45315	FR1095	30423	FR1156	54045	FR1217	30212
FR0913	03135	FR0974	25335	FR1035	45331	FR1096	30425	FR1157	54201	FR1218	30214
FR0914	03151	FR0975	25351	FR1036	45351	FR1097	30441	FR1158	54203	FR1219	30230
FR0915	03153	FR0976	25353	FR1037	45511	FR1098	30443	FR1159	54221	FR1220	30232
FR0916	03155	FR0977	25355	FR1038	45513	FR1099	30445	FR1160	54223	FR1221	30234
FR0917	03315	FR0978	25511	FR1039	45515	FR1100	32021	FR1161	54225	FR1222	30252
FR0918	03351	FR0979	25513	FR1040	45531	FR1101	32023	FR1162	54241	FR1223	30254
FR0919	03353	FR0980	25515	FR1041	45551	FR1102	32025	FR1163	54243	FR1224	30412
FR0920	03511	FR0981	25531	FR1042	10225	FR1103	32041	FR1164	54245	FR1225	30414
FR0921	03513	FR0982	25533	FR1043	10241	FR1104	32043	FR1165	54401	FR1226	30430
FR0922	03515	FR0983	25535	FR1044	10243	FR1105	32045	FR1166	54403	FR1227	30432
FR0923	03531	FR0984	41131	FR1045	10245	FR1106	32201	FR1167	54421	FR1228	30434
FR0924	03533	FR0985	41133	FR1046	10421	FR1107	32203	FR1168	54423	FR1229	30452
FR0925	03535	FR0986	41135	FR1047	10423	FR1108	32241	FR1169	54425	FR1230	30454
FR0926	03551	FR0987	41151	FR1048	10425	FR1109	32401	FR1170	10214	FR1231	32012
FR0927	03553	FR0988	41153	FR1049	10441	FR1110	32403	FR1171	10232	FR1232	32014
FR0928	21135	FR0989	41155	FR1050	10443	FR1111	32421	FR1172	10234	FR1233	32030
FR0929	21151	FR0990	41311	FR1051	10445	FR1112	32425	FR1173	10252	FR1234	32032
FR0930	21153	FR0991	41313	FR1052	12021	FR1113	32441	FR1174	10254	FR1235	32034
FR0931	21155	FR0992	41315	FR1053	12023	FR1114	32445	FR1175	10410	FR1236	32210
FR0932	21315	FR0993	41331	FR1054	12025	FR1115	34021	FR1176	10412	FR1237	32214
FR0933	21335	FR0994	41335	FR1055	12041	FR1116	34023	FR1177	10414	FR1238	32230
FR0934	21351	FR0995	41351	FR1056	12043	FR1117	34025	FR1178	10432	FR1239	32252
FR0935	21353	FR0996	41353	FR1057	12045	FR1118	34041	FR1179	10434	FR1240	32254
FR0936	21355	FR0997	41355	FR1058	12203	FR1119	34043	FR1180	10452	FR1241	32410
FR0937	21511	FR0998	41511	FR1059	12241	FR1120	34045	FR1181	10454	FR1242	32412
FR0938	21513	FR0999	41513	FR1060	12243	FR1121	34201	FR1182	12014	FR1243	32414
FR0939	21515	FR1000	41515	FR1061	12245	FR1122	34203	FR1183	12032	FR1244	32430
FR0940	21531	FR1001	41531	FR1062	12403	FR1123	34221	FR1184	12034	FR1245	32452
FR0941	21533	FR1002	41533	FR1063	12421	FR1124	34225	FR1185	12214	FR1246	32454
FR0942	21535	FR1003	41535	FR1064	12423	FR1125	34241	FR1186	12230	FR1247	34012
FR0943	21551	FR1004	41551	FR1065	12425	FR1126	34245	FR1187	12234	FR1248	34014
FR0944	21553	FR1005	41553	FR1066	12441	FR1127	34401	FR1188	12252	FR1249	34030
FR0945	23115	FR1006	43113	FR1067	12443	FR1128	34403	FR1189	12254	FR1250	34032
FR0946	23135	FR1007	43115	FR1068	12445	FR1129	34421	FR1190	12410	FR1251	34034
FR0947	23151	FR1008	43131	FR1069	14021	FR1130	34423	FR1191	12412	FR1252	34210
FR0948	23153	FR1009	43133	FR1070	14023	FR1131	34425	FR1192	12414	FR1253	34212
FR0949	23155	FR1010	43135	FR1071	14025	FR1132	52021	FR1193	12430	FR1254	34214
FR0950	23315	FR1011	43151	FR1072	14041	FR1133	52023	FR1194	12432	FR1255	34230
FR0951	23351	FR1012	43153	FR1073	14043	FR1134	52025	FR1195	12434	FR1256	34252
FR0952	23353	FR1013	43155	FR1074	14045	FR1135	52041	FR1196	12452	FR1257	34254
FR0953	23511	FR1014	43313	FR1075	14203	FR1136	52043	FR1197	12454	FR1258	34410
FR0954	23513	FR1015	43315	FR1076	14221	FR1137	52045	FR1198	14012	FR1259	34412
FR0955	23515	FR1016	43351	FR1077	14223	FR1138	52201	FR1199	14014	FR1260	34414
FR0956	23531	FR1017	43353	FR1078	14225	FR1139	52203	FR1200	14030	FR1261	34430
FR0957	23533	FR1018	43511	FR1079	14241	FR1140	52241	FR1201	14032	FR1262	34452
FR0958	23535	FR1019	43513	FR1080	14243	FR1141	52243	FR1202	14034	FR1263	52012
FR0959	23551	FR1020	43515	FR1081	14245	FR1142	52245	FR1203	14210	FR1264	52014
FR0960	23553	FR1021	43531	FR1082	14403	FR1143	52401	FR1204	14212	FR1265	52030
FR0961	25113	FR1022	43551	FR1083	14421	FR1144	52403	FR1205	14214	FR1266	52032
FR0962	25115	FR1023	43553	FR1084	14423	FR1145	52421	FR1206	14230	FR1267	52034
FR0963	25131	FR1024	45113	FR1085	14425	FR1146	52423	FR1207	14232	FR1268	52210
FR0964	25133	FR1025	45115	FR1086	30203	FR1147	52425	FR1208	14234	FR1269	52212
FR0965	25135	FR1026	45131	FR1087	30221	FR1148	52441	FR1209	14252	FR1270	52214
FR0966	25151	FR1027	45133	FR1088	30223	FR1149	52443	FR1210	14254	FR1271	52230
FR0967	25153	FR1028	45135	FR1089	30225	FR1150	52445	FR1211	14410	FR1272	52232

Fiat Code Series

FR1-FR2000

FR1273	52234	FR1334	14144	FR1395	34320	FR1456	10355	FR1517	32153	FR1578	54135
FR1274	52252	FR1335	14302	FR1396	34340	FR1457	12115	FR1518	32155	FR1579	54151
FR1275	52254	FR1336	14304	FR1397	34502	FR1458	12135	FR1519	32315	FR1580	54153
FR1276	52410	FR1337	14320	FR1398	34504	FR1459	12151	FR1520	32335	FR1581	54155
FR1277	52412	FR1338	14322	FR1399	34520	FR1460	12153	FR1521	32351	FR1582	54311
FR1278	52414	FR1339	14324	FR1400	34522	FR1461	12155	FR1522	32353	FR1583	54313
FR1279	52430	FR1340	14340	FR1401	34524	FR1462	12315	FR1523	32355	FR1584	54315
FR1280	52432	FR1341	14342	FR1402	34540	FR1463	12335	FR1524	32511	FR1585	54331
FR1281	52434	FR1342	14344	FR1403	34542	FR1464	12351	FR1525	32513	FR1586	54351
FR1282	52452	FR1343	14502	FR1404	52102	FR1465	12353	FR1526	32515	FR1587	54511
FR1283	54012	FR1344	14504	FR1405	52104	FR1466	12355	FR1527	32531	FR1588	54513
FR1284	54014	FR1345	14520	FR1406	52120	FR1467	12511	FR1528	32533	FR1589	54515
FR1285	54030	FR1346	14522	FR1407	52122	FR1468	12513	FR1529	32535	FR1590	54531
FR1286	54032	FR1347	14524	FR1408	52124	FR1469	12515	FR1530	32551	FR1591	54551
FR1287	54034	FR1348	14540	FR1409	52140	FR1470	12531	FR1531	32553	FR1592	11204
FR1288	54210	FR1349	14542	FR1410	52142	FR1471	12533	FR1532	34113	FR1593	11220
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FR1294	54252	FR1355	30140	FR1416	52324	FR1477	14131	FR1538	34153	FR1599	11404
FR1295	54410	FR1356	30142	FR1417	52340	FR1478	14133	FR1539	34155	FR1600	11420
FR1296	54412	FR1357	30144	FR1418	52342	FR1479	14135	FR1540	34311	FR1601	11422
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FR1301	10304	FR1362	30324	FR1423	52522	FR1484	14313	FR1545	34511	FR1606	13022
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FR1306	10342	FR1367	32104	FR1428	54102	FR1489	14353	FR1550	52113	FR1611	13202
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FR1332	14140	FR1393	34302	FR1454	10351	FR1515	32135	FR1576	54131	FR1637	15440
FR1333	14142	FR1394	34304	FR1455	10353	FR1516	32151	FR1577	54133	FR1638	15442

Fiat Code Series

FR1-FR2000

FR1639	31020	FR1700	51402	FR1761	13253	FR1822	35215	FR1883	55413	FR1944	33125
FR1640	31022	FR1701	51404	FR1762	13255	FR1823	35231	FR1884	55415	FR1945	33141
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FR1669	33402	FR1730	55224	FR1791	31035	FR1852	51451	FR1913	15125	FR1974	51145
FR1670	33404	FR1731	55240	FR1792	31215	FR1853	51453	FR1914	15141	FR1975	51303
FR1671	33420	FR1732	55242	FR1793	31235	FR1854	51455	FR1915	15143	FR1976	51321
FR1672	33440	FR1733	55244	FR1794	31251	FR1855	53013	FR1916	15145	FR1977	51323
FR1673	35202	FR1734	55402	FR1795	31253	FR1856	53015	FR1917	15303	FR1978	51325
FR1674	35204	FR1735	55404	FR1796	31255	FR1857	53031	FR1918	15321	FR1979	51341
FR1675	35220	FR1736	55420	FR1797	31411	FR1858	53033	FR1919	15323	FR1980	51343
FR1676	35224	FR1737	55422	FR1798	31413	FR1859	53035	FR1920	15325	FR1981	51345
FR1677	35240	FR1738	55424	FR1799	31415	FR1860	53211	FR1921	15341	FR1982	51521
FR1678	35242	FR1739	55440	FR1800	31431	FR1861	53213	FR1922	15343	FR1983	51523
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FR1680	35402	FR1741	11215	FR1802	31435	FR1863	53231	FR1924	15521	FR1985	51541
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FR1686	35442	FR1747	11415	FR1808	33031	FR1869	53411	FR1930	31125	FR1991	53125
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FR1690	51040	FR1751	11451	FR1812	33251	FR1873	53451	FR1934	31325	FR1995	53301
FR1691	51042	FR1752	11453	FR1813	33253	FR1874	55211	FR1935	31341	FR1996	53321
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FR1693	51202	FR1754	13013	FR1815	33411	FR1876	55215	FR1937	31345	FR1998	53325
FR1694	51204	FR1755	13015	FR1816	33413	FR1877	55231	FR1938	31521	FR1999	53341
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FR1696	51224	FR1757	13035	FR1818	33431	FR1879	55235	FR1940	31525		
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FR1698	51242	FR1759	13235	FR1820	35211	FR1881	55253	FR1942	31543		
FR1699	51244	FR1760	13251	FR1821	35213	FR1882	55411	FR1943	31545		

TRIL

Taking
Industry Products
for a

TEST
DRIVE!

I recently came across a security strap for use in your home, hotel or other places such as RVs, and trailers where you have a key-in-knob lock or lever lock and a deadbolt on the door. It is called the Security Travel Strap and is offered by General Home Security Co.

PRODUCT:

The Security Travel Strap would be especially important where people have installed the ADA approved lever locks which are vulnerable to the under-the-door tool. One of the nice things about this strap is that it not only keeps someone from using the under-the-door tool, it also prevents picking of the deadbolt and even stops someone (room service for example) from entering the room with a working key.

STRENGTH TESTING:

The Security Travel Strap was tested and even when using a working key and a pair of pliers I was unable to exert enough force to retract the bolt. The key broke before the bolt would move.

When I first heard about this, I thought it was too good and simple to be true, but I have tested it on numerous doors and it worked well on all.

HOW IT WORKS:

As you can see in the photograph, this is in fact a strap. The strap is made of reinforced nylon with double strength Velcro built into the strap. There is a reinforced slot at one end. To use you simply place the slot over the thumb-turn of the deadbolt, after locking the deadbolt. You then wrap the strap around the thumb-turn in the direction of the throw of the bolt. This is an important step; if you only

Security Travel Strap, by General Home Security Co.

wrap it a half turn there is a possibility the bolt could slip enough to be retracted.

Once the strap is around the thumb-turn bring the strap down and wrap it once or twice around the knob (or lever) of the lock and stretch it back up towards the dead bolt. Push the two parts of the strap together and the door is now secured from the inside against anyone entering the door.

You will be surprised at how much holding force there is to this strap, you simply cannot apply enough turning force to a key, lock pick, or wrench to force the door open without seriously damaging the lock or the door.

PRICE:

The strap comes in four different decorator colors; black, blue, pink and red. They are very inexpensive, selling for under \$10.00 each.

CONCLUSION:

I recommend that everyone who travels buy one to throw in their suitcase. It could also be useful for people living in rental property where the landlord has a key. The elderly and others who live in managed living quarters also need one. For those who travel in travel trailers, RVs, etc. this offers an extra degree of security from the casual burglar or assailant.

This product has been reviewed



by several police departments, the L.E.A.A., and AAA, and comes highly recommended. This means that there is an unlimited potential for customers of this security strap and the price is definitely right. This is a product that locksmiths could carry in their shops or vans and perform a public service for those who need them.

For more information on the security travel strap contact General Home Security Co. at:

1162 Riverside Dr.
Myrtle Creek, OR 97457
Phone: 800-418-9222.

Circle #371 on Rapid Reply. **TNL**

IN SUMMARY:

DESCRIPTION: The Security Travel Strap is for use in where there is a key-in-knob lock or lever lock and a dead bolt on the door.

COMMENTS: I recommend that everyone who travels buy one to throw in their suitcase.

PRICE: \$10.00

RESULTS: There is an unlimited potential for customers of this security strap and the price is definitely right.